

# CITY OF WEST SACRAMENTO STORMWATER MANAGEMENT PROGRAM (SWMP) PLANNING DOCUMENT



# TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
<b>Abbreviations and Acronyms</b> .....	<b>iii</b>
<b>Glossary</b> .....	<b>iv</b>
<b>Executive Summary</b> .....	<b>vi</b>
<b>1 Introduction</b> .....	<b>1-1</b>
1.1 Legal Foundation.....	1-1
1.2 City Description .....	1-2
1.2.1 <i>Beneficial Uses of Receiving Waters</i> .....	1-4
1.2.2 <i>Pollutants of Concern</i> .....	1-4
1.3 Elements and Organization of the SWMP .....	1-5
1.4 Purpose and Goals of Program Elements.....	1-6
1.4.1 <i>Public Education and Outreach Program</i> .....	1-6
1.4.2 <i>Public Involvement and Participation Program</i> .....	1-6
1.4.3 <i>Illicit Discharges Program</i> .....	1-6
1.4.4 <i>Construction Activities Program</i> .....	1-7
1.4.5 <i>New Development and Redevelopment Program</i> .....	1-7
1.4.6 <i>Municipal Operations Program</i> .....	1-7
1.4.7 <i>Industrial Facilities Program (Optional)</i> .....	1-7
<b>2 Program Elements</b> .....	<b>2-1</b>
2.1 Public Education and Outreach Program.....	2-3
2.1.1 <i>Permit Requirements for Public Education and Outreach</i> .....	2-3
2.1.2 <i>Public Education and Outreach Control Measures</i> .....	2-3
2.1.3 <i>Supporting Control Measures</i> .....	2-3
2.2 Public Involvement and Participation Program .....	2-10
2.2.1 <i>Permit Requirements for Public Involvement and Participation</i> .....	2-10
2.2.2 <i>Control Measures for the Public Involvement and Participation Program</i> .....	2-10
2.2.3 <i>Supporting Control Measures</i> .....	2-10
2.3 Illicit Discharges Program.....	2-17
2.3.1 <i>Permit Requirements for Illicit Discharge Control</i> .....	2-17
2.3.2 <i>Control Measures for the Illicit Discharge Detection and Elimination Program</i> .....	2-17
2.3.3 <i>Supporting Control Measures</i> .....	2-18
2.4 Construction Activities Program .....	2-25
2.4.1 <i>Permit Requirements for Construction Site Stormwater Controls</i> .....	2-25
2.4.2 <i>Control Measures for the Construction Activities Program</i> .....	2-26
2.4.3 <i>Supporting Control Measures</i> .....	2-26
2.5 New Development and Redevelopment Program.....	2-37
2.5.1 <i>Permit Requirements for New Development and Redevelopment</i> .....	2-37
2.5.2 <i>Control Measures for the New Development and Redevelopment Program</i> .....	2-37
2.5.3 <i>Supporting Control Measures</i> .....	2-38
2.6 Municipal Operations Program.....	2-45
2.6.1 <i>Permit Requirements for Pollution Prevention / Good Housekeeping for Municipal Operations</i> .....	2-45
2.6.2 <i>Control Measures for the Municipal Operations Program</i> .....	2-45
2.6.3 <i>Supporting Control Measures</i> .....	2-45
2.7 Industrial Facilities Program (Optional).....	2-57
2.7.1 <i>Control Measures for the Industrial Facilities Program</i> .....	2-57
2.7.2 <i>Supporting Control Measures</i> .....	2-57
<b>3 Program Implementation</b> .....	<b>3-1</b>

3.1	Program Management and Roles .....	3-1
3.1.1	Stormwater Management Program (SWMP) Coordinator .....	3-1
3.1.2	Public Works Department .....	3-1
3.1.3	Community Development Department .....	3-2
3.1.4	Other Departments and Divisions .....	3-2
3.1.5	Separate Implementing Agency .....	3-2
3.2	Program Staffing Resources .....	3-6
3.3	Statement of Funding Adequacy .....	3-6
3.4	Recordkeeping .....	3-6
3.5	Assessment Activities .....	3-6
3.5.1	Monitoring .....	3-7
3.5.2	Program Evaluation .....	3-7
3.5.3	External Reporting .....	3-7
3.5.4	Continuous Improvement .....	3-8

<b><u>Figures</u></b>	<b><u>Page</u></b>
Figure 1-1. West Sacramento Land Use Map .....	1-3
Figure 1-2. SWMP Planning Document organization, highlighting detail in the program elements' sections. Each program element section (only 2.4 is expanded, as an example) describes the element's content and requirements in the Small MS4 General Permit, followed by various control measures ("C.M."). An implementation table indicates the fiscal years that each measurable goal will be undertaken and which City department is responsible for each goal. ....	1-5
Figure 2-1. Illustration of a Control Measure Fact Sheet .....	2-2
Figure 3-1. SWMP Activities by Responsible Department .....	3-4
Figure 3-2. Management of SWMP Program Elements by department .....	3-5

<b><u>Tables</u></b>	<b><u>Page</u></b>
Table 2-A. Index to control measures in each program element .....	2-1
Table 2-B. Public Education and Outreach Program – Implementation schedule and responsibility .....	2-9
Table 2-C. Public Involvement and Participation Program – Implementation schedule and responsibility .....	2-16
Table 2-D. Illicit Discharges Program – Implementation schedule and responsibility .....	2-24
Table 2-E. Construction Activities Program – Implementation schedule and responsibility .....	2-35
Table 2-F. New Development and Redevelopment Program – Implementation schedule and responsibility .....	2-44
Table 2-G. Municipal Operations Program – Implementation schedule and responsibility .....	2-56
Table 2-H. Industrial Facilities Program – Implementation schedule and responsibility .....	2-60

# **ABBREVIATIONS AND ACRONYMS**

**BMP** – Best Management Practice

**CEQA** – California Environmental Quality Act

**EHD** – Environmental Health Department (of Yolo County)

**NOI** – Notice of Intent

**NPDES** – National Pollutant Discharge Elimination System

**RWQCB** – Regional Water Quality Control Board

**SWMP** – Stormwater Management Program

**SWPPP** – Storm Water Pollution Prevention Plan

**SWRCB** – State Water Resources Control Board

**USEPA** – United States Environmental Protection Agency

# GLOSSARY

**Best Management Practices (BMPs)** – Best management practices means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of ‘waters of the United States.’ BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

**Design Standards** – Design Standards are post-construction requirements to incorporate specific structural BMPs into construction projects. Design standards include, but are not limited to, such things as specifying an amount of runoff that must be retained on a site, and prohibiting the direct connection of truck wells in loading docks to the storm drain system.

**Maximum Extent Practicable (MEP)** – MEP is the acronym for Maximum Extent Practicable. MEP is the technology-based standard established by Congress in the Clean Water Act that municipal dischargers of stormwater must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve. MEP is generally a result of emphasizing pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). The MEP approach is an ever evolving, flexible and advancing concept, which considers technical and economic feasibility. As knowledge about controlling pollutants in stormwater continues to evolve, so does that which constitutes MEP. The way in which MEP is met varies between communities. The individual and collective activities elucidated in this SWMP become the proposal for reducing or eliminating pollutants in stormwater to the MEP.

**Measurable Goal** – definable tasks or accomplishments that are associated with implementing BMPs.

**Minimum Control Measure** – A stormwater program area that must be addressed (BMPs implemented to accomplish the program goal) by all regulated Small MS4s. The six minimum control measures required to be addressed by regulated Small MS4s define the parts of section 3.

**Notice of Intent** – Notification statement that the City will comply with a permit to follow certain conditions (in the management of stormwater, in this case).

**Outfall** – a point source at the point where a municipal separate stormwater drainage discharges to waters of the United States and does not include open conveyances connecting two municipal separate stormwater drainages, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

**Point Source** – any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater.

**Performance Standards** – Performance Standards are the level of implementation necessary to demonstrate the control of pollutants in stormwater to MEP.

**Small Municipal Separate Storm Sewer System (Small MS4)** – Means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that are:

- (i) Owned or operated by the United States, a State, County, town, boroughs, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.
- (ii) Not defined as “large” or “medium” municipal separate storm sewer systems.
- (iii) This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

MS4s are also referred to as storm drain systems.

**Significant Redevelopment** - Significant Redevelopment means land-disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area on an already developed site. Where Redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post development stormwater quality control requirements, the entire project must be mitigated. Where Redevelopment results in an alteration to less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post development stormwater quality Design Standards, only the alteration must be mitigated, and not the entire development. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety. Existing single-family structures are exempt from the Redevelopment requirements.

**Storm Water Pollution Prevention Plan (SWPPP)** – a documented step-by-step process for ensuring that pollutants from a site and its activities are not making their way into the stormwater discharges from the site. Specifically, the pollution prevention plan requires that you select and implement best management practices, including schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce pollutants in stormwater from the site.

**Waters of the State** – any surface water or groundwater, including saline waters, within the boundaries of the state.

# EXECUTIVE SUMMARY

The City of West Sacramento (“the City”) has developed this Stormwater Management Program (SWMP) Planning Document to address stormwater quality within the City’s jurisdiction. The SWMP addresses a wide variety of activities conducted in urbanized areas of the City that are sources of pollutants in stormwater. This planning document is submitted with the Notice of Intent to comply with a forthcoming statewide general permit for designated municipalities, indicating the City’s commitment to managing properties, facilities and operations within its jurisdiction to protect its water resources.

The City’s SWMP is comprised of seven program elements, namely:

1. **Public Education and Outreach** – Provides for the education of the general population and businesses about stormwater quality.
2. **Public Involvement and Participation** – Establishes opportunities for the public to participate in the development and implementation of pollution prevention measures.
3. **Illicit Discharges** – Establishes a program to identify and eliminate illicit discharges to the storm drain system.
4. **Construction Activities** – Establishes controls to reduce pollutants from construction activities.
5. **New Development and Redevelopment** – Creates opportunities for the installation of permanent stormwater controls on new development and major redevelopment projects.
6. **Municipal Operations** – Requires the City to implement stormwater quality control measures at City maintenance facilities and in field operations (e.g., street sweeping).
7. **Industrial Facilities (Optional)** – Establishes an inventory of industrial facilities and identifies opportunities for reducing stormwater pollutants from facilities.

Each program element consists of various control measures, as shown in this table:

Control Measure Acronym	Control Measure Title
<i>Public Education and Outreach</i>	
PEO1	Develop and Broadcast a Coordinated Stormwater Pollution Message to the Public
PEO2	Outreach to City Staff and Officials about Stormwater Issues
<i>Public Involvement and Participation</i>	
PIP1	Public Input on the SWMP
PIP2	Community Volunteerism and Participation
<i>Illicit Discharges</i>	
ID1	Stormwater Quality Control Ordinance for Illicit Discharge
ID2	Illicit Discharge Detection and Elimination Activities
<i>Construction Activities</i>	
CA1	Stormwater Quality Control Ordinance for Construction Sites
CA2	Construction Activity Plan Review
CA3	Construction Site Inspections
CA4	Compliance with Construction Permit for City Projects

Control Measure Acronym	Control Measure Title
<i>New Development and Redevelopment</i>	
NDR1	Stormwater Quality Control Ordinance for Post-construction Stormwater BMPs
NDR2	Land Development Plan Review
<i>Municipal Operations</i>	
MO1	Employee Education and Training
MO2	Signage, Roadwork and Street Sweeping Activities
MO3	Storm Drain System Maintenance
MO4	Municipal Open Space Management
MO5	Stormwater Management Practices at Municipal Facilities
<i>Industrial Facilities</i>	
IF1	Stormwater Management Practices at Industrial Facilities

Control measure fact sheets have been prepared and include:

- **Objective:** Provides a brief description of the activities, sources, or pollutants to be addressed by the control measure.
- **Description:** Describes the activities, sources or pollutants to be addressed by the control measure.
- **Existing BMPs and Related Activities:** Describes current practices and activities associated with this control measure.
- **Measurable Goals:** Describes the quantifiable goals of the control measure, including activities to be conducted by the City to comply with the stormwater regulations.
- **Assessment Tasks:** Provides tasks to be conducted to help assess the effectiveness of the control measure to reduce pollutants in urban runoff. These assessment tasks are a quantitative approach to verifying the City’s efforts to implement the control measure
- **Responsibility:** identifies City departments and positions responsible for implementing the control measure.

Several City government departments will implement various tasks outlined in this planning document. Many of these tasks are complimentary with existing City programs and efforts. The SWMP Coordinator position is new for the City. This person will oversee the implementation of the control measures and related activities, evaluate their effectiveness, and strive to improve the program over time.

Full implementation of the SWMP will be a long-term process. Considered together, the program elements, with control measures and associated BMPs, form a comprehensive programmatic framework that reduces pollutants in stormwater to the maximum extent practicable. Implementation will be monitored and program effectiveness assessed annually over the permit period. The SWMP will be revised annually as necessary to address areas identified as deficient during the effectiveness evaluation process.

# 1 INTRODUCTION

---

The City of West Sacramento (hereafter “West Sacramento” or “the City”) has developed this Stormwater Management Program (SWMP) to comply with a statewide general permit for discharging stormwater to waters of the state. This document has been developed through the efforts of the Public Works Department, in collaboration with other City departments. Copies of this document and other information can be obtained in the main lobbies of the Public Works Department and the Civic Center or by contacting the SWMP Coordinator at (916) 373-5850.

## 1.1 Legal Foundation

The Clean Water Act, originally enacted in 1972, embodies the legal requirement for protecting beneficial uses in waters of the state. The U.S. Environmental Protection Agency (USEPA) was created as the federal government agency tasked to carry out the mandate of protecting the nation’s natural environment. The USEPA initially focused its efforts on point source discharges of pollutants, primarily wastewater from industrial and municipal treatment facilities.

More recently, diffuse sources of pollutants (often referred to as “nonpoint sources” to distinguish them from point source) have been recognized in many areas as significant contributors. Although urban stormwater is diffuse in nature it is discharged through outfall points and therefore is classified as a point source. As a result, USEPA has recently begun to regulate municipal stormwater discharges as point sources by requiring these municipalities to obtain a National Pollutant Discharge Elimination System (NPDES) permit.

In response to the 1987 Amendments to the Clean Water Act (CWA), USEPA developed Phase I of the NPDES Storm Water Program in 1990. Beginning at that time, municipalities with populations greater than 100,000 began to develop and implement stormwater management programs. In California, Phase I municipalities now have individual NPDES permits, administered by Regional Water Quality Control Boards (RWQCB).

Phase II of the regulations require municipalities with smaller populations – but still urban communities – to develop and implement stormwater management programs. In California, the State Water Resources Control Board has drafted the *General Permit for Discharges of Storm Water From Small Municipal Separate Storm Sewer Systems* (hereafter the “Small MS4 General Permit” where MS4 stands for Municipal Separate Storm Sewer System), to which all designated municipalities must submit a Notice of Intent (NOI) to seek coverage under the Small MS4 General Permit. The nine Regional Water Quality Control Boards, as the designated regional authorities under the State Board, administer the Phase II permit program.

The City must implement best management practices (BMPs) that reduce pollutants in stormwater to the “maximum extent practicable” (MEP). MEP is the technology-based standard established by Congress in CWA §402(p)(3)(B)(iii). Technology-based standards establish the level of pollutant reductions that dischargers must achieve. MEP is generally a result of emphasizing pollution prevention and source control BMPs as the first lines of defense in combination with treatment methods serving as additional lines of defense, where appropriate. The MEP approach is an ever-evolving, flexible and advancing concept, which considers technical and economic feasibility. As knowledge about controlling pollutants in stormwater

continues to evolve, so does that which constitutes MEP. The way in which MEP is met may vary among communities.

The MEP standard applies to municipalities regulated by the Small MS4 General Permit. Consistent with USEPA guidance, the Small MS4 General Permit requires the City to develop and implement six “minimum control measures” (referred to as “program elements” for the SWMP). These six program elements are:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge
4. Construction Activities
5. New Development and Redevelopment
6. Municipal Operations.

In addition, the City may choose to include other program elements applicable to the community environment. In the case of West Sacramento, an additional program element is being considered to address the industrial facilities within the City. In choosing control measures and their associated BMPs for these program elements, the City considers technical feasibility, effectiveness, cost, and public acceptance.

## **1.2 City Description**

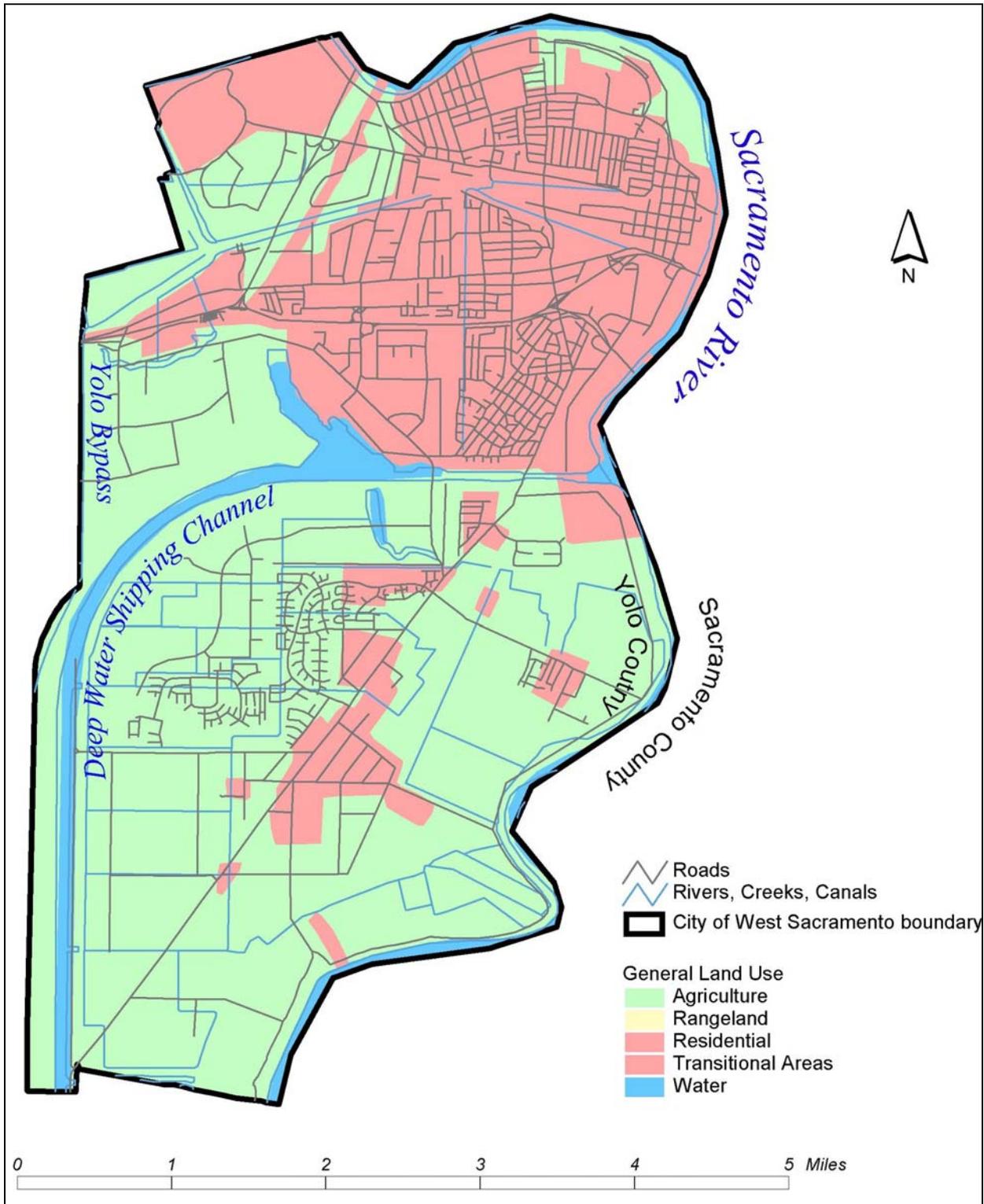
West Sacramento is located in the Sacramento Valley within Yolo County (Figure 1-1). The City is one of the newest in the state, incorporated on January 1, 1987. The City’s population totaled 28,650 in 1990 and has increased only to approximately 34,500 people today. However, the population is anticipated to surpass 40,000 by 2005<sup>1</sup>. This high growth rate classifies the City as a “high growth potential area” as defined in the Small MS4 General Permit.

The City believes that a truly successful city requires a trusting partnership of citizens, elected officials, and city employees. Therefore, the City developed a mission statement – to become the Premier City of the Sacramento Valley – outlining the commitment of the City to serve the citizens of West Sacramento.

The City's 19.2 square miles (12,288 acres) has 11 miles of natural riverfront along the Sacramento River. There are also 100 acres of park space. The area is flat and just above sea level. Its proximity to the City and County of Sacramento and a deepwater shipping channel are conducive to both industry and residential communities. Extensive urban development has led to hundreds of miles of concrete curbs and approximately 1,500 drainage inlets for stormwater. Several major industries (over 80) operate in the City, including oil industries, the River Cats baseball stadium, and a deepwater shipping port.

---

<sup>1</sup> Population figures provided by the Sacramento Area Council of Governments, at <http://www.sacog.org/demographics/proj2001/pdf/cities/yolo.pdf>.



**Figure 1-1. West Sacramento Land Use Map.**

Stormwater from the City *north* of Interstate-80 is carried through a system of both surface ditches (in more residential areas) and pipes (in more commercial areas). Approximately 95% of the water is then discharged (pumped) into the Yolo Bypass by Reclamation District 900. Approximately 5% of the water (no more than 500 acres) is discharged to the Sacramento River.

Stormwater from the City of West Sacramento *south* of Interstate-80 drains through surface ditches into a main drain. Water in the main drain is discharged (pumped) into the Deepwater Shipping Channel. Both the Yolo Bypass and the Deepwater Shipping Channel drain southward into the San Francisco Bay-Delta.

### *1.2.1 Beneficial Uses of Receiving Waters*

Designated beneficial uses existing for the lower Sacramento River (considered part of the Delta in this tidally-influenced reach) and the Yolo Bypass are given in the 1998 Basin Plan<sup>2</sup>.

- Water supply
- Irrigation
- Canoeing and rafting
- Stock watering
- Industrial Process
- Industrial Service Supply
- Contact recreation
- Non-contact recreation
- Warm water habitat
- Cold water habitat
- Warm water migration
- Cold water migration
- Warm water spawning
- Wildlife habitat
- Navigation.

### *1.2.2 Pollutants of Concern*

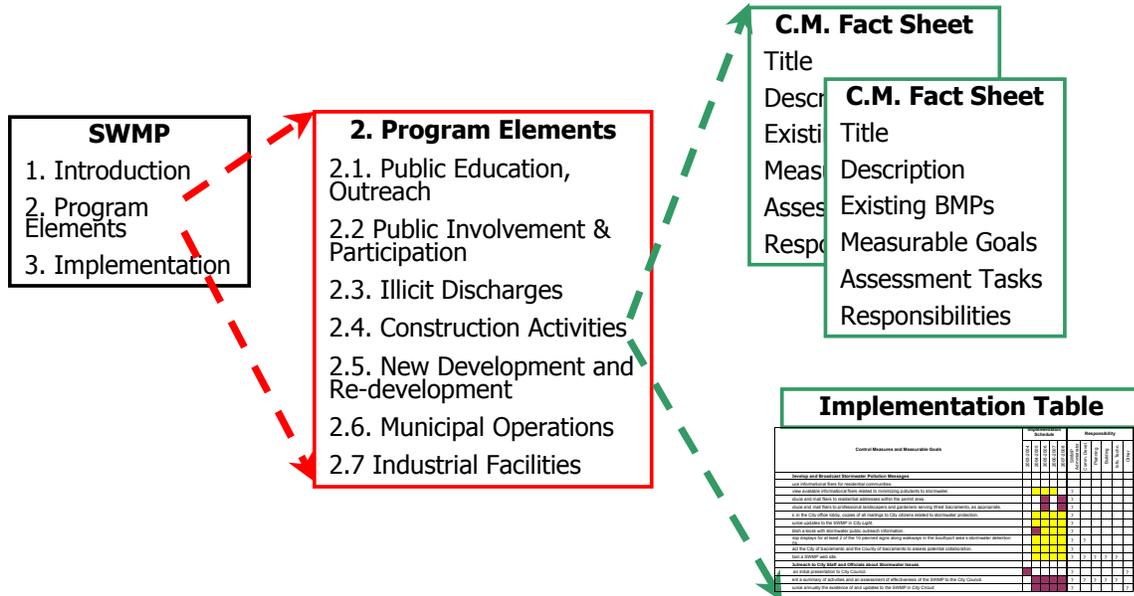
Pollutants typically found in stormwater in urban areas include sediments, non-sediment solids, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons (PAHs), trash, and pesticides and herbicides. All of these pollutants could negatively impact the existing and potential beneficial uses in the receiving waters. There are no monitoring data available to indicate that stormwater pollutants in West Sacramento are different from typical urban areas.

---

<sup>2</sup> The full title of this document by the Central Valley Regional Water Quality Control Board is: *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*.

### 1.3 Elements and Organization of the SWMP

The City of West Sacramento’s SWMP is a comprehensive environmental program that addresses a wide range of activities found in various City departments. As such, the SWMP builds upon the City’s existing environmental programs and activities. The graphic show in Figure 1-2 shows the relationship of the program elements, control measures, and BMPs that make up the overall SWMP.



**Figure 1-2. SWMP Planning Document organization, highlighting detail in the program elements’ sections. Each program element section (only 2.4 is expanded, as an example) describes the element’s content and requirements in the Small MS4 General Permit, followed by various control measures (“C.M.”). An implementation table indicates the fiscal years that each measurable goal will be undertaken and which City department is responsible for each goal.**

The SWMP is organized into three sections:

**Section 1** introduces the City’s environment, explains the legal basis for the SWMP, discusses pollutants of concern, and lays out the major elements of the SWMP.

**Section 2** describes each program element and the corresponding proposed control measures and BMPs that will be implemented. This section addresses the planning, development, implementation and enforcement for each program element. The seven program elements are:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharges
4. Construction Activities
5. New Development and Redevelopment
6. Municipal Operations

## 7. Industrial Facilities.

Requirements for each control measure as stated in the Small MS4 General Permit are given at the beginning of each program element's section.

**Section 3** describes the City's plan to implement the SWMP and includes descriptions of:

- Management roles and responsibilities for program implementation,
- Staffing requirements,
- Fiscal resources available,
- Recordkeeping procedures, and
- Assessment activities.

The program elements, with control measures and associated BMPs, form a comprehensive programmatic framework that reduces pollutants in stormwater to the maximum extent practicable. This framework provides a complete cycle of assessing the problem, developing a program to address the problem, implementing the program as designed, and evaluating its effectiveness.

Full implementation of the SWMP will be a long-term process. Implementation will be monitored and program effectiveness assessed annually over the permit period. The SWMP will be revised annually as necessary to address areas identified as deficient during the effectiveness evaluation process.

### **1.4 Purpose and Goals of Program Elements**

In the context of this SWMP, the control measures are the foundation of the program elements. The purpose and goal of the program elements are described in the following sections:

#### *1.4.1 Public Education and Outreach Program*

This program element describes the current and planned public education and outreach activities that address stormwater pollution. The goal is to educate the general population about stormwater pollution and what they can do about it.

#### *1.4.2 Public Involvement and Participation Program*

This program element describes the current and planned public involvement and participation activities that address stormwater pollution. The goal is to recommend pollution prevention measures that the public can implement. Also, the citizens will be invited to participate in refining this SWMP.

#### *1.4.3 Illicit Discharges Program*

This program element describes the control measures to eliminate or reduce the discharge of non-stormwater associated with illicit connections and illegal dumping to the storm drain system. The goal is to reduce the discharge of pollutants to storm drain systems by eliminating connections of wastewater lines, interior drains, and other non-permitted direct connections, by

implementing spill and clean-up plans, and by enforcing City code to prohibit dumping to the storm drain system.

#### *1.4.4 Construction Activities Program*

This program element describes the controls to reduce the discharge of pollutants associated with construction activities. The goal is to control pollutants associated with construction activities by requiring a construction site to implement adequate water quality control measures and by enforcing the implementation of the requirements through adequate construction site inspections.

#### *1.4.5 New Development and Redevelopment Program*

This program element describes the controls to reduce the discharge of pollutants associated with runoff from new development and redevelopment projects after construction is complete. The goal is to require permanent stormwater BMPs. The design of the BMPs will be verified through the plan review and approval process. The program also includes measures to ensure the long-term maintenance of permanent BMPs.

#### *1.4.6 Municipal Operations Program*

This program element contains the control measures to reduce pollutants from municipal activities conducted in public right-of-ways and at publicly operated facilities. The goal is to reduce the amount and type of pollutants that (1) collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas; and (2) results from maintenance of storm drain systems.

#### *1.4.7 Industrial Facilities Program (Optional)*

This optional program element is important for the City because of the significant industrial base within the permit area. The goal is to gather information on industrial facilities' efforts in stormwater management and to use that information as a basis for improving their efforts to reduce pollutants from their sites.

## 2 PROGRAM ELEMENTS

This section of the Stormwater Management Program (SWMP) Planning Document describes the program elements being proposed by the City. The planned activities address the various sources of pollutants in stormwater from the urbanized areas of the City. The program elements and control measures have been grouped by source/function categories as shown in Table 2-A.

**Table 2-A. Index to control measures in each program element**

Control Measure Acronym	Control Measure Title
<i>Section 2.1: Public Education and Outreach</i>	
PEO1	Develop and Broadcast Stormwater Pollution Messages to the Public
PEO2	Outreach to City Staff and Officials about Stormwater Issues
<i>Section 2.2: Public Involvement and Participation</i>	
PIP1	Public Input on the SWMP
PIP2	Community Volunteerism and Participation
<i>Section 2.3: Illicit Discharge</i>	
ID1	Stormwater Quality Control Ordinance for Illicit Discharges
ID2	Illicit Discharge Detection and Elimination Activities
<i>Section 2.4: Construction Activities</i>	
CA1	Stormwater Quality Control Ordinance for Construction Sites
CA2	Construction Activity Plan Review
CA3	Construction Site Inspections
CA4	Compliance with Construction Permit for City Projects
<i>Section 2.5: New Development and Redevelopment</i>	
NDR1	Stormwater Quality Control Ordinance for Post-construction Stormwater BMPs
NDR2	Land Development Plan Review
<i>Section 2.6: Municipal Operations</i>	
MO1	Employee Education and Training
MO2	Signage, Roadwork and Street Sweeping Activities
MO3	Storm Drain System Maintenance
MO4	Municipal Open Space Management
MO5	Stormwater Management Practices at Municipal Facilities
<i>Section 2.7: Industrial Facilities (Optional)</i>	
IF1	Stormwater Management Practices at Industrial Facilities

Each program element section begins with an introductory statement that discusses the background and regulatory requirements of the program, describes the basic strategy for the control measures provided in the program section, and indicates supporting program elements.

Following the introductory section are control measure fact sheets (see Figure 2-1 for an illustration with explanatory text) that consist of the control measure title and objectives, description, existing BMPs and activities, measurable goals, assessment tasks and responsible positions in City government.

At the end of each program element section is a table summarizing the control measures, along with their implementation schedule and responsible position or department.

**Figure 2-1. Illustration of a Control Measure Fact Sheet**

<b>Program Element Title</b>	<b>Control Measure Acronym (example PEO1)</b>
<b>Control Measure Title:</b>	This provides the title of the control measure.
<b>Control Measure Objective:</b>	This provides a brief description of the sources, activities, or pollutants to be addressed by the control measure.
<hr/>	
<b>DESCRIPTION</b>	
This section outlines the purpose and scope of the control measure.	
<b>EXISTING BMPs AND RELATED ACTIVITIES</b>	
This section describes existing BMPs and activities associated with this control measure. The City itself may not be responsible for all activities (e.g., volunteer groups and countywide programs), but they affect the local community nonetheless.	
<b>MEASURABLE GOALS</b>	
This section describes the quantifiable goals of the control measure and includes activities to be conducted by the City to comply with the stormwater regulations. Activities include such things as reviewing or developing documents or procedures, providing training, revising schedules, eliminating practices, etc.	
<b>ASSESSMENT TASKS</b>	
This section provides a quantitative approach to verify the City’s efforts to implement the control measure.	
<b>RESPONSIBILITY</b>	
City staff positions responsible for implementing the control measure are identified. The SWMP Coordinator is understood to be responsible for all assessment tasks.	

## **2.1 Public Education and Outreach Program**

The Public Education and Outreach Program focuses on educating the public through a variety of media about the potential impact of stormwater discharges on a water body. Increased public knowledge will result in increased public acceptance and support of the program.

### *2.1.1 Permit Requirements for Public Education and Outreach*

The Small MS4 General Permit requires the City to implement a public education program to distribute educational materials to the community or to conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

### *2.1.2 Public Education and Outreach Control Measures*

PEO1 provides education and outreach materials pertaining to stormwater pollution to City citizens. The City will mail fliers enclosed with utility bills to residents. This information will also be mailed to professional landscapers and gardeners serving communities in the City. All mailings will also be available in the City office lobby. Staff will post stormwater issues on the City's web site. Relevant documents (for example, this SWMP and the Small MS4 General Permit), mailers, photos, and press releases will be included on the web site. The City will also contact neighboring cities and counties to assess potential collaboration in implementing stormwater outreach activities (e.g., radio announcements).

POE2 pertains to outreach efforts to the City Council. Council members and participants will be updated concurrently with permit compliance report submittals.

### *2.1.3 Supporting Control Measures*

The Public Involvement and Participation program element plays a collaborative role in educational efforts. Presentations to and discussions with advisory committees serve to spread the stormwater message. Support to volunteer groups serves as a hands-on educational tool.

---

<b>Control Measure Title:</b>	Develop and Broadcast Stormwater Pollution Messages to the Public
<b>Control Measure Objective:</b>	Educate City residents about impacts of stormwater pollution and about the City's Stormwater Management Program.

---

## DESCRIPTION

Printed materials and public advertisements are a common way to inform the public about stormwater pollution. The target audience is homeowners and professional landscapers. The City's ever-expanding and readily accessible web site will allow for rapid retrieval of information.

## EXISTING BMPs AND RELATED ACTIVITIES

- The Yolo County Health Department's Environmental Health Division (EHD) regulates businesses associated with chemical use. Landscape and gardening businesses that apply pesticides are required to have a Maintenance Gardener Pest Control Business License. To qualify, applicants must obtain a Qualified Applicator Certificate, issued by the State, and register with the County Agricultural Commissioner. EHD notifies businesses of new regulations for pesticides and other hazardous chemicals, and enforces compliance with regulations.
- The City maintains a web site ([www.ci.west-sacramento.ca.us](http://www.ci.west-sacramento.ca.us)). Public service announcements (of upcoming events and public meetings) and available reports are given through this link. The web site also contains guidance for construction and development.
- The City's main office (public lobby) provides a number of stormwater-related brochures, including the following:
  - Landscape guidelines;
  - Southport Drainage Master Plan;
  - General Permit Information for Residential Construction; and
  - Industrial, Commercial, Multi-Family Building Permit requirements.
- The City has two medium-sized billboards available for use within the City. Typically, the billboard is available for either six months at a time or for two three-month increments. The billboard company covers the production costs of the messages on the billboards.
- The City encourages the purchase and use of recyclable products in informational materials included with utility bills and information provided at events.
- City Administrative Policy IV-B-7 supports the purchase of recycled items for City supplies and products.
- The cable company in the City ("Charter") is available for posting static (billboard type) announcements and they are updated weekly. Such announcements are free of charge for official City announcements. The cable station also broadcasts City Council meetings.

- The Southport area has been planned with over 10 stormwater detention basins. The design of each basin includes pedestrian and bike paths and signage.
- *City Light* (for the general public) is a quarterly newsletter published by the City. The revised street sweeping schedule was announced in this publication along with the message “When your street is scheduled for sweeping, the city requests that you remove any parked vehicles from the street to enable the sweeper to do a thorough job. Thanks for your cooperation in making this first year of this program a ‘clean sweep’!”
- The Civic Center and various supermarkets are designed with kiosks in the main plaza. These features provide a location for outreach material to be posted regarding various City activities and events.
- The City participates in the Yolo County Fair with a booth displaying City activities for various departments.
- Stormwater drainage inlets in newly developed areas of the City are required to have the message “No Dumping – Flows to River” stamped into the concrete (Photo a). Inlets installed prior to the stamping program have markers glued on (Photo b).



- The City invites science teachers and students to tour the Public Works Department to learn about City activities. Staff are also available to give presentations to interested classes.
- Because of the City’s proximity to the City of Sacramento, public service announcements from local radio stations regarding stormwater issues, that are sponsored by the City of Sacramento, also reach West Sacramento residents.
- To educate children and their parents, classroom presentations are offered for elementary, middle, and high school students.
- The City of Sacramento maintains a stormwater pollution prevention display at the Sacramento Zoo (which is visited by students from West Sacramento schools).

## MEASURABLE GOALS

1. Produce informational fliers for residential neighborhoods. The fliers will list the major impacts of stormwater pollutants and actions that the public should take to minimize stormwater pollution. Along with a message about the potential impacts and hazards of pollutants in stormwater, potential topics include:

- 
- Appropriate pesticide use and alternative pest management techniques
  - Efficient lawn irrigation
  - Appropriate herbicide use and alternative weed management techniques
  - Composting options for yard waste
  - Proper pet waste disposal
  - Proper fertilizer application techniques
  - Appropriate BMPs for washing automobiles.
- a. Review available informational fliers related to minimizing pollutants to stormwater. Confer with:
    - UC Davis Master Gardener Program
    - Yolo County Agriculture Department
    - Yolo County Resource Conservation District
    - Yolo County Health Department.
  - b. Produce and mail one set of fliers to residential addresses within the permit area. Lightweight flyers and brochures may be enclosed with utility bills to minimize the cost of postage.
  - c. Produce and mail one set of fliers to professional landscapers and gardeners serving West Sacramento (based on listings in the local Yellow Pages).
2. Place, in the City office lobby, copies of all mailings to City citizens related to stormwater protection.
  3. Announce annual updates to the SWMP and stormwater messages in *City Light*.
  4. Consider a kiosk with stormwater public outreach information at one permanent kiosk in the Civic Center or in local supermarkets.
  5. Develop displays for at least 2 of the 10 planned signs along walkways in the Southport area's stormwater detention basins.
  6. Contact neighboring cities and counties to assess potential collaboration in implementing stormwater outreach activities (e.g., radio announcements).
  7. Maintain SWMP information on the City's web site (<http://www.ci.west-sacramento.ca.us>). The web site may contain the following information:
    - Important messages on stormwater management, as appropriate:
      - Importance of local waterways
      - Hazards, including human and environmental health risks, associated with illegal discharges and improper disposal of waste
      - Local impacts of stormwater
      - Steps that the public can take to reduce pollutants in stormwater.

- Downloadable documents related to the SWMP:
  - This SWMP document
  - Small MS4 General Permit
- Link to the State Water Resources Control Board's stormwater program.

**ASSESSMENT TASKS**

1. Track distribution of mailings to residents and professional landscapers including addressees, quantity, and date.
2. Document any comments or suggestions made by the community regarding outreach materials.

**RESPONSIBILITY**

The SWMP Coordinator will develop and publicize stormwater pollution messages. The Information Technology Division will support the development of the SWMP web site. The Community Relations Division will assist the SWMP Coordinator with developing displays along walkways in the Southport area's stormwater detention basins.

---

<b>Control Measure Title:</b>	Outreach to City Staff and Officials about Stormwater Issues
<b>Control Measure Objective:</b>	Inform and update local officials about the City's Stormwater Management Program through notices and presentations.

---

## DESCRIPTION

City Council (elected officials) is the link between the citizens of West Sacramento and City employees. Providing outreach to these representatives will make them aware of various activities related to stormwater management and encourage support for planned activities.

## EXISTING BMPs AND RELATED ACTIVITIES

- *City Circuit* (for City employees) is a quarterly newsletter available for press releases related to the SWMP.
- The West Sacramento City Council holds regular meetings on the 1st, 2nd, and 3rd Wednesday of every month beginning at 7:00 p.m. City staff regularly provide updates on City activities.

## MEASURABLE GOALS

1. Give an initial presentation to City Council. Educate Council members and stakeholders on:
  - The importance of protecting stormwater quality in the City.
  - Hazards, including human and environmental health risks, associated with illegal discharges and improper disposal of waste.
  - The SWMP's elements and control measures.
2. Announce annually the existence of and updates to the SWMP in *City Circuit*.

## ASSESSMENT TASKS

Record and address comments received from presentations to City Council.

## RESPONSIBILITY

The SWMP Coordinator is responsible for making presentations, collecting assessment material, and announcing SWMP information. The City Clerk will assist with scheduling the presentations.

**Table 2-B. Public Education and Outreach Program – Implementation schedule and responsibility**

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Coordinator	Comm. Relat.	Public Works	Comm. Devel.	Info. Techn.	City Clerk
<b>PEO1 Develop and Broadcast Stormwater Pollution Messages to the Public</b>											
1. Produce informational fliers for residential neighborhoods.											
a. Review available informational fliers related to minimizing pollutants to stormwater.						●	◐				
b. Produce and mail one set of fliers to residential addresses within the permit area.						●					
c. Produce and mail one set of fliers to professional landscapers and gardeners serving West Sacramento.						●					
2. Place, in the City office lobby, copies of all mailings to City citizens related to stormwater protection.						●					
3. Announce updates to the SWMP in <i>City Light</i> .						●					
4. Consider a kiosk with stormwater public outreach information.						●	◐				
5. Develop displays for at least 2 of the 10 planned signs along walkways in the Southport area's stormwater detention basins.						●	◐				
6. Contact neighboring cities and counties to assess potential collaboration.						●	◐				
7. Maintain SWMP information on the City's web site.						◐	◐	◐	◐	●	
<b>PEO2 Outreach to City Staff and Officials about Stormwater Issues</b>											
1. Give an initial presentation to City Council.						●					◐
2. Announce annually the existence of and updates to the SWMP in <i>City Circuit</i> .						●					◐



Continuing activity, reviewed or revised as needed throughout implementation  
 One-time activity to develop or implement a measurable goal

- Individual or department to take lead in the development or implementation of an activity.
- ◐ Individual or department to provide strong support in the development or implementation of an activity.
- ◑ Individual or department to review and provide comments and guidance during the development or implementation of an activity.

## **2.2 Public Involvement and Participation Program**

The Public Involvement and Participation Program focuses on citizens, businesses and representatives to assist in the City's efforts to improve stormwater quality. Through participation, the public can provide valuable input and assistance in program development and implementation. Increased public involvement and participation result in increased public acceptance and support of the program, and help to ensure a successful and effective program to reduce stormwater pollutants.

### *2.2.1 Permit Requirements for Public Involvement and Participation*

The Small MS4 General Permit requires the City to comply with State and local public notice requirements when implementing the SWMP. Consequently, the SWMP must be properly noticed and heard. The ultimate success of the SWMP will depend on a public that is actively engaged. Thus, the SWMP should:

1. Involve the public in the continuing development and refinement of the SWMP;
2. Encourage public participation in developing and implementing the SWMP;
3. Allow the public to review the SWMP; and
4. Include a procedure to receive and respond to comments from the public regarding the SWMP.

### *2.2.2 Control Measures for the Public Involvement and Participation Program*

This program element supports volunteer activities while involving City representatives in development of the SWMP.

PIP1 promotes public input on the SWMP through interaction between City staff and a) City Council, b) the Environment Commission, and c) local citizens.

PIP2 promotes volunteer activities in target communities. The City will facilitate and encourage involvement of local citizens in the cleanup of local waterways.

### *2.2.3 Supporting Control Measures*

Education and outreach activities of the SWMP encourage citizens to review and comment on the SWMP. Public participation in the development and implementation of the General Plan is also relevant. The SWMP document will be posted on the City web page for review and comment. Recycling and hazardous waste collection programs (PEO1) provide outreach to citizens on measures they can take to reduce waste in the community.

---

<b>Control Measure Title:</b>	Public Input on the SWMP
<b>Control Measure Objective:</b>	Promote public participation in the development and review of the SWMP.

---

## DESCRIPTION

Public announcements, calls for input, and meetings are excellent ways to inform citizens about stormwater impacts in addition to gaining support for the proposed stormwater management program. Key issues, especially those that directly affect the public, can be described during these meetings to increase awareness about citizen responsibility, costs, and expected benefits. Stakeholders might include citizens, local school groups, community leaders, local and state government representatives, and business owners. Their input will provide valuable information and guidance for appropriate implementation of the SWMP.

## EXISTING BMPs AND RELATED ACTIVITIES

- The City complies with all existing State and local public notice requirements regarding the adoption of public plans or policies:
  - Legal notices are posted for public review at City Hall and printed in West Sacramento's local newspapers, *The News-Ledger* or the *West Sacramento Press*.
  - Press releases are sent out as required to *The News-Ledger* and *West Sacramento Press*.
- City Council's Planning Commission and Parks and Community Services Commission meet regularly. Some aspects of stormwater management program apply to these commissions.

## MEASURABLE GOALS

1. Comply with all State and local public notice requirements for the adoption and periodic revisions of the SWMP.
  - Post legal notices at City Hall and print in the local newspaper, *The News-Ledger* and *West Sacramento Press*.
  - Submit press releases announcing SWMP updates to the *News-Ledger* and *West Sacramento Press*.
2. Provide copies of the SWMP at prominent City locations:
  - County Library, 1212 Merkley Avenue
  - Public Works Department, 1151 South River Road
  - Civic Center, 1110 West Capitol Avenue.
3. Facilitate and invite the public and City Council's Planning Commission and Parks and Community Services Commission or the Agriculture and Natural Resources Commission to attend an annual workshop regarding activities and the implementation schedule in the SWMP. Schedule the workshops prior to each submittal of the annual Permit Compliance Reports to the RWQCB (August 15 each year of the first five-year permit term).

- Present ongoing activities complying with the SWMP.
- Present results of assessment tasks.
- Discuss recommended changes to measurable goal.

**ASSESSMENT TASKS**

Receive, address and log all comments received regarding the SWMP.

**RESPONSIBILITY**

The SWMP Coordinator is responsible for implementing this control measure, which involves managing public input on the SWMP. The Community Relations Division and City Clerk will assist with scheduling public workshops.

---

<b>Control Measure Title:</b>	Community Volunteerism and Participation
<b>Control Measure Objective:</b>	Promote voluntary public participation in the implementation of the SWMP.

---

## DESCRIPTION

An effective way to promote stormwater awareness is to support volunteer activities. Many people are unaware that the storm drain system discharges runoff directly into local waterbodies. Awareness campaigns, monitoring and cleanup activities allow concerned citizens to become directly involved in water pollution prevention. As a result, streams become cleaner, volunteers feel a sense of accomplishment, and the community at large is better informed.

## EXISTING BMPs AND RELATED ACTIVITIES

- The City's Bicycle and Pedestrian Path Plan (see <http://www.ci.west-sacramento.ca.us/community/bikeplan.pdf>) now provides a corridor for bicyclists between the Yolo Causeway and Capital Mall. The Bike Plan encourages bicycling and walking as alternatives to automobile transportation, thereby reducing pollution discharges that result from increasing numbers of automobiles.
- Neighborhood Groups organized throughout the City meet regularly (monthly or quarterly, depending on issues of interest) to discuss City issues.
- Boy Scouts occasionally inquire City staff about possible service projects for an environmental merit badge and as Eagle Scout projects.
- The City sponsors Community Clean-Up Days in neighborhoods throughout the City. Residents are encouraged to bring bulky waste to a designated location. Past grant projects have also included tree plantings and storm drain inlet stenciling events.
- Yolo County Division of Integrated Waste Management facilitates hazardous waste turn-in days every other month at the Yolo County Central Landfill for all citizens and businesses of Yolo County. Each event generally serves between 300 and 400 County residents. They are advertised in the *News-Ledger* and *West Sacramento Press*, among others. The Chamber of Commerce is also informed. In addition, fliers are provided to the City for distribution in local schools.
- Yolo County employs a full-time Recycling Coordinator, who manages a recycling program. Major activities include a yearly used oil campaign publicized through television and radio commercials and brochures. The County has also produced for 2003 a recycling calendar, providing information on waste collection days, contacts, and other information sources, handed out at the hazardous waste collection events. Recyclable paper, plastics and metals are collected curbside weekly in most urban areas. Computers, stereos, printers, monitors and televisions are accepted at the landfill during regular business hours.



- The City recently partnered with Yolo County and the City of Sacramento to allow West Sacramento residents the use of recycling facilities in Yolo County and the City of Sacramento.
- The City of West Sacramento also employs a full-time staff position to promote and facilitate recycling activities in the City, including the collection of used oil and filters curbside. Staff work with neighboring cities and counties to help support a used oil and used oil filter recycling education campaign.
- Businesses, multi-family residences, and schools, along with single-family residences, are encouraged and educated on how to recycle properly through the City's curbside recycling program.
- The Millennium Club awards City employees who use non-motorized transport for over 5,000 miles of travel. Employees receive t-shirts and verbal recognition. Future non-motorized transport awards will be given via the Wellness Committee.
- The City has a contract with Yolo County for bi-monthly household hazardous waste collection. The City promotes this service mainly through utility bill fliers.

### **MEASURABLE GOALS**

1. Facilitate annual waterway clean-up efforts within the City coordinated by local volunteer organizations and Neighborhood Groups by providing material (tools, trash bags, trash collection) support. Facilitate one weekend of activity annually, as needed.
2. Continue to support the City recycling program's outreach efforts. Provide information on disposal options (collection days, contacts, and additional information sources) through appropriate media for:
  - Used oil (drop-off locations)
  - Recyclable paper, plastics and metals (weekly curbside collection)
  - Computers, stereos, printers, monitors and televisions (accepted during regular business hours at the landfill).
3. Continue bi-monthly promotion and implementation of citywide hazardous waste collection activities.
  - Advertise in the *News-Ledger* and *West Sacramento Press*.
  - Inform the cable TV station
  - Distribute fliers to local schools.

### **ASSESSMENT TASKS**

1. Maintain records of facilitated waterway clean-up activities, including locations and quantities of trash and other materials removed from the stream reaches.
2. Assess recycling and hazardous waste disposal programs' effectiveness through current coordination efforts conducted by the Refuse and Recycling Coordinator.

**RESPONSIBILITY**

The SWMP Coordinator is primarily responsible for implementing the measurable goals, including assessing performance of the activities, and facilitating annual stream monitoring and clean-up efforts within the City. The Community Relations Division will assist with contacting Neighborhood Groups and organizing volunteer activities. The Refuse and Recycling Program Coordinator will implement and assess all trash collection and recycling program activities.

**Table 2-C. Public Involvement and Participation Program – Implementation schedule and responsibility**

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Coordinator	City Clerk	Recycling Coordinator	Comm. Relat.	Envir. Health	Other
<b>PIP1 Public Input on the SWMP</b>											
1. Comply with all State and local public notice requirements for the adoption and periodic revision of the SWMP.	■	■	■	■	■	●					
2. Provide copies of the SWMP at prominent City locations.	■	■	■	■	■	●					
3. Facilitate annual public workshops regarding activities and the implementation schedule in the SWMP.	■	■	■	■	■	●	◐		◐		
<b>PIP2 Community Volunteerism and Participation</b>						●					
1. Facilitate annual waterway clean-up efforts within the City.	■	■	■	■	■	●			◐		
2. Continue to support citywide recycling programs.	■	■	■	■	■	◐		●			
2. Continue bi-monthly promotion and implementation of citywide hazardous waste collection activities.	■	■	■	■	■	◐		●			



Continuing activity, reviewed or revised as needed throughout implementation  
 One-time activity to develop or implement a measurable goal

- Individual or department to take lead in the development or implementation of an activity.
- ◐ Individual or department to provide strong support in the development or implementation of an activity.
- ◑ Individual or department to review and provide comments and guidance during the development or implementation of an activity.

## 2.3 Illicit Discharges Program

The Illicit Discharges Program focuses on detecting and eliminating illicit discharges into the storm drain system. Most municipal storm drain systems convey flows other than stormwater. These non-stormwater flows enter the storm drain system from a variety of sources, such as landscape irrigation. Illicit discharges are another source of non-stormwater that enters the storm drain system through illicit connections and illegal dumping. An illicit connection is a physical connection to the storm drain system that has not been approved by an agency and that conveys a prohibited non-stormwater discharge. Illegal dumping is the dumping of prohibited materials into the conveyance system, streets, inlets or basins, or the improper disposal of material on land that is then discharged to the storm drain system when it rains. Non-stormwater caused by illicit discharges can be a source of pollutants that may adversely impact receiving waters.

### 2.3.1 Permit Requirements for Illicit Discharge Control

The Small MS4 General Permit requires the City to develop, implement and enforce a program to detect and eliminate illicit discharges into the stormwater system. At a minimum, the City must:

1. Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and locations of all waters of the state and other MS4s that receive discharges from those outfalls;
2. Develop and implement a plan to detect and address non-stormwater discharges to the system, including illegal dumping, that are not authorized by a separate NPDES permit;
3. Inform public employees, businesses, and the general public of hazards including human and environmental health risks associated with illegal discharges and improper disposal of waste; and
4. Adopt an ordinance, policy, or other regulatory mechanism, to prohibit non-stormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions.

Several non-stormwater discharges must be addressed if the City or RWQCB identifies them as significant contributors of pollutants. These discharges include: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration to separate storm sewers, uncontaminated pumped ground waters, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl spaces pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water. To date, none of these discharges have been identified as significant contributors of pollutants in urban areas of the City.

### 2.3.2 Control Measures for the Illicit Discharge Detection and Elimination Program

Illicit discharges are largely controlled through existing activities and policies. Control measures noted here are related to continuing and improving these activities, as well as to providing a more solid legal basis for enforcement.

ID1 evaluates the need for an ordinance that would enforce the prohibition of illicit discharges into City storm drain systems. The City will review existing City ordinances, evaluate model ordinances, and, if necessary, develop a Stormwater Quality Control Ordinance to enforce this program element. If not provided already, the stormwater ordinance would provide City inspectors with adequate legal authority and enforcement.

ID2 identifies illicit discharges to the storm drain system through an inspection program. The City will enhance the current inspection program by improving procedures for responding to reports of hazardous material spills in the City, and developing and distributing educational materials regarding proper waste disposal methods.

### *2.3.3 Supporting Control Measures*

Three other program elements support the effort to detect and eliminate illegal discharges:

- Public Education and Outreach Program – educates the general public regarding illegal discharges and improper disposal of waste.
- Public Involvement and Participation Program – supports the recycling program that provides for the collection and recycling/ disposal of hazardous waste.
- Municipal Operations Program – educates and trains selected public employees in detection and elimination of illegal discharges, and maintains open space management that minimizes non-stormwater discharges.

<b>Control Measure Title:</b>	Stormwater Quality Control Ordinance for Illicit Discharge
<b>Control Measure Objective:</b>	Develop a City ordinance to enforce the elimination of illicit discharges.

**DESCRIPTION**

Ordinances are the most effective means for municipalities to enforce permit requirements prohibiting illicit discharges to the storm drain system. The City will develop an ordinance with language supporting the detection and elimination of illicit discharges by prohibiting such discharges and providing for enforcement of compliance.

**EXISTING BMPs AND RELATED ACTIVITIES**

- Numerous City ordinances already address illicit discharges:
  - City ordinance 6.16.220 (Dogs – Deposit of Fecal Matter) prohibits owners from allowing their dog to deposit fecal matter on the lands of another, which helps to prevent stormwater contamination.
  - City ordinance 8.18.100 (Storage of Hazardous Materials) requires that the design and construction of hazardous storage facilities meet City code requirements.
  - City ordinance 8.20.050 (Underground Storage Tank Abandonment) ensures that underground storage tanks are properly decommissioned to avoid contamination of stormwater.
  - City ordinance 12.12.030 (Parks and Community Service Facilities – Use Restrictions) prohibits the inappropriate use of city parks and community services, including the proper disposal of waste to avoid pollution of the storm drain system.
  - City ordinance 13.09.250 (Wastewater Discharges Prohibited) prohibits the discharge of wastewater to any storm drain.
  - City ordinance 17.37.010 (outdoor storage in residential areas) prohibits the storage of any personal property not fully enclosed within a structure, thereby helping to reduce the likelihood of pollutants entering the storm drain system.
  - City ordinance 13.08.055 prohibits unlawful disposal for sewage disposal.
- City Code Enforcement personnel do outreach, inspections, and enforcement.
- City residents are served with weekly garbage collection and recycling. There is no limit to the amount collected from any residential property, which encourages yard cleanup.
- Refuse, including yard debris, is not permitted to be placed in the street in order to avoid discharge of pollutants to the storm drain system.
- Yolo County Environmental Health Department (EHD) investigates improper sewage disposal practices as reported by the public. Citations for illicit discharges into the storm drain system can be issued by EHD under Section 25189.5 of the California Health and Safety Code.

**MEASURABLE GOALS**

1. Review and evaluate existing City ordinances regulating illicit discharges to the storm drain system.
2. Evaluate available model ordinances for applicability in the City.
  - Model Urban Runoff Program's example stormwater management ordinance
  - City of Sacramento's stormwater management ordinance
3. If necessary, adopt a Stormwater Quality Control Ordinance that incorporates the prohibition of illicit discharges into the storm drain system.
  - a. Draft ordinance in Year 1.
  - b. Finalize ordinance in Year 2.
4. Establish an ordinance enforcement program with penalties.

**ASSESSMENT TASKS**

1. List associated City ordinances reviewed in context of illicit discharges.
2. List model ordinances reviewed in context of illicit discharges.

**RESPONSIBILITY**

The SWMP Coordinator is primarily responsible for developing the stormwater ordinance. The City Attorney and various City departments relying on this ordinance for enforcement capability will support this effort by review and input.

<b>Control Measure Title:</b>	Illicit Discharge Detection and Elimination Activities
<b>Control Measure Objective:</b>	Maintain and improve upon City practices aimed at detecting and eliminating illicit discharges.

**DESCRIPTION**

Identifying and removing illicit discharges is a measure for reducing stormwater pollutants. Systematic mapping and inspection of the storm drain system, combined with a response procedure for public complaints, will effectively control illicit discharges. Developing and distributing educational materials regarding proper waste disposal methods and discouraging illicit discharges to the system by distributing instructional messages will help educate the public.

**EXISTING BMPs AND RELATED ACTIVITIES**

- The Public Works Department maintains a computerized database for work performed in the Utilities Division. The database is currently populated with over two years of work-order driven data.
- Maps of the storm drain system and other major infrastructure are accurate for the newer South Port area, but have been updated inconsistently for older (prior to incorporation of the City) areas.
- The City utilizes a mobile video camera to inspect stormwater and sewer pipes during inspections and maintenance activities. Evidence of water quality concerns such as illicit discharges and ex-filtration are reported to supervisors.
- Pump stations are routinely inspected approximately weekly (more during the wet season, less during the dry season). In addition, the stations are inspected throughout major storms. Visual inspection checklist forms are used for each visit. Supervisors are notified of potential problems. The Yolo County Environmental Health Department (EHD) is also notified if environmental health concerns are found.
- Utilities and Street Maintenance Department crews are trained to identify illicit discharges when maintaining City infrastructure. The City of West Sacramento has detailed procedures for responding to hazardous and sewage spills and has experience dealing with illicit discharges:
  - The Yolo County EHD manages an Emergency Response Team, trained in Hazmat Level 1, and is on-call 24 hours per day (530-666-8930). The Team is comprised of EHD staff and the West Sacramento Fire Department. The Team responds to all spills and leaks of hazardous and non-hazardous materials.
  - Field crews contact the Emergency Response Team upon detection of illicit discharges to the storm drain system.
  - Clean-up activities include measures to prohibit or limit flows to the storm drain system. The Team is responsible for classifying the material, contracting for disposal of hazardous materials, and declaring the area safe.

**MEASURABLE GOALS**

1. Update the storm drain system map for older portions of the City.
2. If the City supports an additional staff position, inspect portions of the storm drain system annually for illegal discharges, providing inspection of the entire system by the end of the five-year permit cycle.
3. Monitor the sanitary sewer system weekly at lift stations and bi-monthly in the collection system.
4. Maintain the emergency response procedures to address complaints by residents and businesses reporting illegal dumping or illicit connections to the storm drain system.  
Reported complaints to:
  - Emergency Response (911)
  - Local Fire Department
  - Yolo County Environmental Health Division (530-666-8646)
  - SWMP Coordinator.
5. Train field crews in protocol for notification of illegal discharges.
6. Implement appropriate enforcement action against any individuals or businesses found causing illegal discharges.
7. Inform (in Year 2) the Fire Departments of responsibility for managing flows generated during non-emergency activities to prevent them from being discharged to the storm drain system.
8. Develop and distribute door hangers regarding proper disposal methods to homeowners in the vicinity of illegal discharges.

**ASSESSMENT TASKS**

1. Document changes to the storm drain system map.
2. Maintain records of citizen complaints and responses regarding illicit discharges to the storm drain system, including date and location of incident, and type and quantity of material dumped or discharged.
3. Maintain records of the number of homeowners in the vicinity of illegal discharges who received door hangers regarding proper disposal methods.

**RESPONSIBILITY**

The Community Development Department will oversee improvements to the storm drain system map. The Engineering Division is responsible for inspecting the storm drain system, monitoring the sanitary sewer system, assisting with the training of field crews, and maintaining the emergency response procedures for illicit discharge complaints. The SWMP Coordinator will oversee improvements to the storm drain systems map, development and distribution of a public

outreach door hangers, inform the Fire Department of their hazardous waste spill responsibilities, development and use of an inspection checklist, and training of field crews. The County Environmental Health Department and the Fire Department are responsible for responding to reports of hazardous waste spills.

**Table 2-D. Illicit Discharges Program – Implementation schedule and responsibility**

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Coordinator	Engineering	City Attorney	Fire Dept.	Comm. Devel.	Env. Health
<b>ID1 Stormwater Quality Control Ordinance for Illicit Discharge</b>											
1. Review existing City ordinances.	■					●	○	○			
2. Evaluate available model ordinances for applicability in the City.	■					●	○	○			
3. If necessary, adopt a Stormwater Quality Control Ordinance that incorporates the prohibition of illicit discharges into the storm drain system.											
a. Draft the ordinance.		■				●		○			
b. Finalize the ordinance.			■			●		○			
4. Establish an ordinance enforcement program with penalties.		■				●		○			
<b>ID2 Illicit Discharge Detection and Elimination Activities</b>											
1. Update the storm drain system map for older portions of the City.	■					○				●	
2. If the City supports an additional staff position, inspect portions of the storm drain system annually for illegal discharges, providing inspection of the entire system by the end of the five-year permit cycle.	■	■	■	■	■	○	●				
3. Monitor the sanitary sewer system weekly for lift stations and bi-monthly for the collection system.	■	■	■	■	■	○	●				
4. Maintain the emergency response procedures to address complaints by residents and businesses reporting illegal dumping or illicit connections to the storm drain system.	■	■	■	■	■	○	●		●		●
5. Train field crews in protocol for notification of illegal discharges.		■	■	■	■	○	●				
6. Implement appropriate enforcement action against any individuals or businesses found causing illegal discharges.			■	■	■	○			●		●
7. Inform the Fire Department of responsibility for managing flows generated during non-emergency activities to prevent them from being discharged to the storm drain system		■				●					
8. Develop and distribute door hangers regarding proper disposal methods to homeowners in the vicinity of illegal discharges.				■	■	●	○				



Continuing activity, reviewed or revised as needed throughout implementation  
 One-time activity to develop or implement a measurable goal

- Individual or department to take lead in the development or implementation of an activity.
- Individual or department to provide strong support in the development or implementation of an activity.
- Individual or department to review and provide comments and guidance during the development or implementation of an activity.

## 2.4 Construction Activities Program

The Construction Activities Program focuses on ensuring that controls are in place to prevent or minimize water quality impacts caused by pollutants from construction sites. Failure to implement adequate erosion and sediment control measures can result in more significant contributions of sediment to waters than what was contributed previously from undisturbed land. Excessive sediment loading can result in severe impacts to water quality. In addition, erosion and sediment transport are vehicles for other pollutants associated with construction activities (such as solvents, petroleum products, trash, pesticides, fertilizers, concrete and paint).

### 2.4.1 Permit Requirements for Construction Site Stormwater Controls

The Small MS4 General Permit requires the City to develop, implement and enforce a program to ensure controls are in place that will prevent or minimize water quality impacts caused by pollutants from construction sites. Within the City's jurisdiction, the program must apply to all construction projects that disturbs greater than or equal to one acre (including projects less than one acre that are part of a larger common plan of development or sale that would disturb more than one acre) and that discharge into the City's storm drain system. At a minimum, the City must:

1. Adopt, maintain, and enforce an ordinance, policy, or other regulatory mechanism to require erosion and sediment controls at the construction sites, as well as sanctions to ensure compliance, to the extent allowable under federal, state or local law;
2. Require construction site operators to implement appropriate and effective erosion and sediment control BMPs;
3. Require construction site operators to control all pollutant sources at the construction site that may cause adverse impacts to water quality, including, but not limited to, construction materials and waste, discarded building materials, concrete truck washout, chemicals, fuel, litter and sanitary waste;
4. Implement procedures for site plan review that incorporate consideration of potential water quality impacts from construction activities;
5. Implement procedures for receipt of and response to information submitted by the public; and
6. Implement procedures for site inspections and enforcement of control measures.

Although the first item allows for "other regulatory mechanisms", the typical mechanism is an ordinance. Also, although Item 1 indicates that authority is only needed for erosion and sediment controls, Item 3 requires pollutant sources to be controlled. This control is also typically addressed through the adoption of an ordinance.

The Phase II regulations do not specify which BMPs are used at any site. Rather, it is the responsibility of the City to develop its own guidance and standards or to specify measures appropriate for local conditions. Construction sites implicated in this program element (i.e., disturb more than one acre of land) are required to obtain coverage under a Construction Activities Storm Water General Permit administered by the state. Overlap between the General

Permit for Construction Activities and this program element will help to ensure implementation of stormwater quality control BMPs at construction sites.

#### *2.4.2 Control Measures for the Construction Activities Program*

Control measures presented in this section address construction activities. The oversight process starts during the land development application approval process through to the completion of construction activities. These measures apply to projects disturbing at least one acre of land either independently or as part of a larger development plan.

CA1 establishes adequate legal authorities, through a Stormwater Quality Control Ordinance if necessary, to require and enforce erosion and sediment control plans and Stormwater Pollution Prevention Plans (SWPPPs).

CA2 incorporates consideration of potential water quality impacts from construction activities during construction site plan and BMP review procedures. The City will develop standards for erosion and sediment control on construction sites. Construction contractors will be informed of the regulations and their intent.

CA3 implements inspection procedures to address stormwater management at construction sites. Plan checkers and inspection staff will continue to be trained to recognize proper erosion and sediment controls and pollution prevention BMPs appropriate for construction activities. The City will require that development sites provide copies of their SWPPPs to the inspectors.

CA4 requires the City to address the statewide General Permit for Construction Activity at its own construction sites.

#### *2.4.3 Supporting Control Measures*

Local citizens will be more aware of the importance of stormwater BMPs through public outreach activities. The public participation program provides mechanisms for the public to notify City inspectors of potential water quality issues.

---

<b>Control Measure Title:</b>	Stormwater Quality Control Ordinance for Construction Sites
<b>Control Measure Objective:</b>	Adopt an ordinance to implement and enforce City design standards for erosion and sediment control plans and stormwater BMPs for defined construction sites.

---

## DESCRIPTION

Ordinances are the most effective means for municipalities to control the discharge of pollutants from construction sites. The City will develop an ordinance with language supporting planning and inspection of practices and controls on construction sites to eliminate or minimize sediment and other pollutants from entering the storm drain system.

## EXISTING BMPs AND RELATED ACTIVITIES

- Storm Water Pollution Prevention Plans (SWPPPs) are required by State regulation – but not City ordinance – for construction sites impacting lands larger than one acre.
- City ordinance 15.08.180 (erosion control) establishes standards for the preparation of sites and construction activities to protect the health, safety, and general welfare of the public by protecting against unwarranted or unsafe grading, drainage works, or other aspects of site development. Uniform Building Code (UBC) standards for building sites are currently used as the basis for comparison. City inspectors often look for compliance with minimum industry standards, such as those required by the Federal Housing Authority.
- City ordinance 13.04.850 (Construction Uses) states that water uses for dust control, curing, compacting, cleaning or other construction use may be subject to limitations and shall not interfere with other domestic uses.

## MEASURABLE GOALS

1. Review the statewide Construction Activities Storm Water General Permit.
2. Review existing City ordinances related to construction activities.
3. Evaluate available model ordinances for applicability in the City.
  - Model Urban Runoff Program stormwater management ordinance template
  - EPA model ordinance (available at [www.epa.gov/nps/ordinance/mol2.htm](http://www.epa.gov/nps/ordinance/mol2.htm))
  - City of Sacramento stormwater ordinances.
4. If necessary, adopt a Stormwater Quality Control Ordinance to control the discharge of sediment and other construction site pollutants into the storm drain system. The ordinance may require submittal of grading plans, erosion and sediment control plans, and SWPPPs to the City.
  - a. Draft Ordinance in Year 2.
  - b. Finalize Ordinance in Year 3.

5. Establish an ordinance enforcement program with penalties.

**ASSESSMENT TASKS**

1. List example ordinances reviewed in developing the City ordinance for construction activities.
2. Record adoption of a Stormwater Quality Control Ordinance with construction activities provisions.
3. Document establishment of an enforcement program with penalties.

**RESPONSIBILITY**

The SWMP Coordinator is responsible for the review of model ordinances and existing City ordinances and establishment of an enforcement ordinance for construction sites. The City Attorney will assist with developing and promulgating the stormwater quality control ordinance. The Community Development Department utilizing the ordinance's enforcement capability will review the draft ordinance.

---

<b>Control Measure Title:</b>	Construction Activity Plan Review
<b>Control Measure Objective:</b>	Establish standard conditions of approval and engineering design standards and specifications for stormwater BMPs to be used during construction activities.

---

## DESCRIPTION

Effective planning of construction site activities leads to minimizing erosion and preventing pollutants from entering the storm drain system. The City will develop standards for construction sites. City plan reviewers will be trained to recognize appropriate conditions. Construction contractors will be informed of the regulations and their intent.

## EXISTING BMPs AND RELATED ACTIVITIES

- All building permit applicants are given standard information packets and a letter from the RWQCB informing contractors of their responsibility for complying with the Construction Activities Storm Water General Permit requirements. Additional environmental protection information is also provided if specific environmental requirements are placed on the contractor for the project.
- To comply with CEQA requirements for subdivision development applications, the Planning Division establishes necessary mitigation measures (e.g., dust control, hours of operation, and regulation of heavy equipment) to ensure significant environmental impacts will not occur as a result of construction activities.
- Public complaints for construction activities are generally received by the Public Works Department and then routed to the Engineering Construction Manager overseeing the project.
- The Engineering Division's General Requirements ensure that temporary erosion control measures are established for construction projects, including abatement for mud and silt in construction site runoff. The contractor is responsible for temporary erosion control at all times. By October 15<sup>th</sup> of each year (or earlier if conditions warrant) these temporary erosion control features are constructed and operating.

## MEASURABLE GOALS

1. Evaluate current erosion and sediment controls and stormwater quality BMPs for construction sites.
2. Review available construction site stormwater BMPs for application in the City:
  - EPA guidance on their web (site [http://cfpub.epa.gov/npdes/stormwater/menuofbmps/con\\_site.cfm](http://cfpub.epa.gov/npdes/stormwater/menuofbmps/con_site.cfm))
  - California Construction BMP Handbook (<http://www.CaBMPhandbooks.org>).
3. Develop standards and specifications for construction site stormwater BMPs:
  - Grading

- Erosion control and sediment control
  - Contractor's activities that may cause adverse impacts on water quality.
4. Establish standard conditions of approval for protecting against erosion and other causes of water quality degradation from all phases of construction activities that result in a land disturbance of one-acre or more, or less if part of a common plan of development.
    - Establish standard conditions that require proof of coverage (i.e., NOI) under the State's Construction Activities Storm Water General Permit, when appropriate.
    - Establish a standard process for the submittal, review, comment and approval of grading plans.
  5. Develop a checklist for stormwater BMPs to be used by those reviewing site plans.
  6. Provide applicable standards and specifications to local construction contractors and developers by amending the standard information packets for development permits.
  7. Conduct training workshops with City staff and other interested parties to:
    - Educate construction contractors regarding the City's stormwater quality policies and standards for construction activities.
    - Train staff responsible for development application review in construction activity controls.

### **ASSESSMENT TASKS**

1. Record revisions to local standards and ordinances.
2. Record the number of Erosion and Sediment Control Plans received, reviewed and approved/disapproved by City staff.
3. Record the number of SWPPPs received and reviewed by the City.
4. Record training sessions held for construction contractors and for staff responsible for reviewing construction plans.

### **RESPONSIBILITY**

The Building and Engineering Divisions are mainly responsible for implementing this control measure. These departments will coordinate construction activity plan review, including evaluation, development, and review of stormwater BMPs and education of the public and City staff. The SWMP Coordinator will assist with staff training and periodically evaluate local standards and ordinances to identify changes and to revise as needed. The SWMP Coordinator will also establish standards for stormwater BMPs.

---

<b>Control Measure Title:</b>	Construction Site Inspections
<b>Control Measure Objective:</b>	Implement a construction site inspection program.

---

## DESCRIPTION

Proper construction and maintenance of construction activity BMPs is critical for the protection of water quality. The City will provide adequate inspection during the construction and maintenance of these BMPs.

## EXISTING BMPs AND RELATED ACTIVITIES

- The Community Development Department has an established construction inspection program. Inspectors visit each construction site daily during active construction periods.
- On City-funded Capitol Improvement projects, detailed information about the project is recorded, such as weather, labor, equipment, controlling operation of work, tests that are conducted, visitors, quantities of materials, and products installed. Inspection frequency depends on the controlling operation of work. If the responsible parties do not comply, the City will typically issue a verbal warning and request compliance or amendment in non-hazardous situations. With more serious issues, a Notice of Non-Compliance is issued along with amendment guidelines. In hazardous situations, the City issues a Stop Work Notice until corrective measures are taken.

## MEASURABLE GOALS

1. Develop a standard inspection form or checklist to be used in the field to ensure consistent review of erosion and sediment control and other stormwater quality BMPs. The checklist will address the following items:
  - Availability of SWPPPs on site
  - Non-stormwater discharges that are not allowed into the storm drain system (e.g., chlorinated waters from main line testing, concrete wash waters, and contractor equipment rinse waters)
  - Erosion and sediment control measures, waste management measures, proper storage, use and disposal of construction materials, and chemicals, and any other relevant BMPs.
2. Train staff responsible for conducting pre-construction meetings and construction site inspections. The training may include:
  - Erosion and sediment controls and other stormwater quality control requirements for construction activities
  - Proper design and construction of post-construction stormwater BMPs
  - Procedures for enforcing code compliance.

3. Expand pre-construction meetings for all projects greater than one acre to include a review of erosion and sediment control plans, stormwater quality control measures, and other relevant City requirements regarding stormwater quality management.
4. Receive and respond to information submitted by the public regarding stormwater runoff impacts due to construction projects.

**ASSESSMENT TASKS**

1. Document edits to inspection checklist for stormwater BMPs.
2. Record the construction sites requiring coverage under the Construction Activities Storm Water General Permit, the number of inspections conducted by City staff, a description of deficiencies found, type of enforcement action(s) taken, and any follow-up actions taken by the City.
3. Record publicly submitted information regarding impacts of stormwater runoff from construction sites.
4. Record training sessions held for pre-construction meeting coordinators and field inspection staff.
5. Record the number of pre-construction meetings conducted by City staff that incorporate discussion of erosion and sediment controls and stormwater quality control measures.
6. Conduct field spot inspections by the SWMP Coordinator to verify that inspections are being adequately conducted regarding stormwater quality issues.

**RESPONSIBILITY**

The Community Development Department is responsible for implementing this control measure, which includes developing and implementing an inspection and code compliance system, providing customer service to the public, and coordinating construction stormwater regulation compliance efforts with City departments. The SWMP Coordinator will assist the Community Development Department with each aspect of this control measure.

---

<b>Control Measure Title:</b>	Compliance with the Construction Activities Storm Water General Permit for City Projects
<b>Control Measure Objective:</b>	The City will comply with the statewide Construction Activities Storm Water General Permit for all sites larger than one acre.

---

## DESCRIPTION

The statewide Construction Activities Storm Water General Permit requires development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for all construction activities greater than one acre in size. The SWPPP emphasizes the use of appropriately selected, correctly installed and maintained BMPs. The City, as an exemplary implementing agency, will require all of its designated construction activities to comply with the permit.

## EXISTING BMPs AND RELATED ACTIVITIES

- City projects currently comply with all requirements and permits from the Regional Water Quality Control Board, including the Construction Activities Storm Water General Permit.
- The Engineering Division's General Requirements ensure that construction contractors are responsible for temporary erosion control at all times.
  - Temporary erosion control consists of, but is not limited to, constructing such facilities and taking such measures as are necessary to prevent, control and abate water, mud and erosion damage to public and private property as a result of the project.
  - By October 15<sup>th</sup> of each year (or earlier if conditions warrant) temporary erosion control features necessary to prevent damage during the forthcoming winter season, are constructed and operating.
  - Mud and silt must be settled out of stormwater runoff before runoff leaves the construction site or enters the City storm drain system.

## MEASURABLE GOALS

1. Review SWPPPs developed by construction contractors for all City construction projects larger than one acre.
2. Use the standard inspection form or checklist developed for CA3 to ensure consistent field review of erosion and sediment control and other stormwater BMPs. In particular,
  - Inspect erosion and sediment control measures, waste management measures, proper storage, use and disposal of construction materials, and chemicals, and any other relevant BMPs.
  - Identify and prohibit non-stormwater discharges that are not allowed into the storm drain system (e.g., chlorinated waters from main line testing, concrete wash waters, and contractor equipment rinse waters).

- Check that developers comply with the general stormwater permit, which requires preparation of a SWPPP and keeping a copy for reference on site.
3. Follow inspection frequencies developed in CA3 for City construction projects as well.

### **ASSESSMENT TASKS**

1. Record names and locations of City construction sites requiring coverage under the Construction Activities Storm Water General Permit, the number of inspections conducted by staff, a description of deficiencies found, and any follow-up actions taken by the City.
2. Maintain a record of publicly submitted information regarding impacts of stormwater from construction sites.
3. Conduct field spot inspections to verify that inspections are being adequately conducted regarding stormwater quality issues.

### **RESPONSIBILITY**

The Engineering Division is responsible for ensuring compliance with construction permits for City projects, which includes reviewing SWPPPs developed by construction contractors, ensuring consistent field review of stormwater BMPs, and implementing code compliance enforcement procedures. The Planning and Building Divisions will assist in reviewing SWPPPs developed by construction contractors.

**Table 2-E. Construction Activities Program – Implementation schedule and responsibility**

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Coordinator	Engineering	Planning	Comm. Devel.	City Attorney	Other
<b>CA1 Stormwater Quality Control Ordinance for Construction Sites</b>											
1. Review the statewide Construction Activities Storm Water General Permit.	■					●	○	○	○	○	
2. Review existing City ordinances related to construction activities.		■				●	○	○	○	○	
3. Evaluate available model ordinances for applicability in the City.		■				●					
4. If necessary, adopt a Stormwater Quality Control Ordinance with construction site provisions.											
a. Draft the ordinance.		■				○				●	
b. Finalize the ordinance.			■			○				●	
5. Establish an ordinance enforcement program with penalties.			■	■	■	●	○		○		
<b>CA2 Construction Activity Plan Review</b>											
1. Evaluate current erosion and sediment controls and stormwater quality BMPs for construction sites.		■				○	●		●		
2. Review available construction site stormwater BMPs for application in the City.			■			○	●		●		
3. Develop standards and specifications for construction site stormwater BMPs.			■			○	●		●		
4. Establish standard conditions of approval for protecting against erosion and other causes of water quality degradation.			■			●	○		○		
5. Develop a checklist for stormwater BMPs to be used by those reviewing site plans.			■			○	●		●		
6. Provide applicable standards and specifications to local construction contractors and developers by amending the standard information packets for development permits.			■			○			●		
7. Conduct training workshops with City staff and other interested parties.				■		○	●		●		
<b>CA3 Construction Site Inspections</b>											
1. Develop a standard inspection form or checklist.			■			●			○		
2. Train construction site inspection staff.		■			■	○			●		
3. Expand pre-construction meetings for all projects greater than one acre to include a review of erosion and sediment control plans, stormwater quality control measures, and other relevant City stormwater management requirements.				■		○			●		
4. Receive and respond to information submitted by the public regarding stormwater runoff impacts due to construction projects.	■	■	■	■	■	○			●		

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Coordinator	Engineering	Planning	Comm. Devel.	City Attorney	Other
<b>CA4 Compliance with the Construction Activities Storm Water General Permit for City Projects</b>											
1. Review SWPPPs developed by construction contractors for City construction projects larger than one acre.						☉	●		●		
2. Use the standard inspection form or checklist developed for CA3 to ensure consistent field review of erosion and sediment control and other stormwater BMPs.						☉	●		●		
3. Follow inspection frequencies developed in CA3 for City construction projects as well.						☉	●		●		



Continuing activity, reviewed or revised as needed throughout implementation  
 One-time activity to develop or implement a measurable goal

- Individual or department to take lead in the development or implementation of an activity.
- Individual or department to provide strong support in the development or implementation of an activity.
- ☉ Individual or department to review and provide comments and guidance during the development or implementation of an activity.

## 2.5 New Development and Redevelopment Program

The New Development and Redevelopment Program focuses on minimizing the long-term impacts of stormwater from new development and redevelopment projects. Numerous water quality studies have shown impacts on receiving water caused by stormwater from impervious surfaces. Pollutants associated with residential, commercial and industrial activities in a watershed include sediment, fertilizers, pesticides, solvents, paints, waste oil, other vehicle fluids, petroleum hydrocarbons, heavy metals, and coliform from human and animal wastes. Stormwater that comes in contact with these pollutants can be transported quickly and efficiently to and through the storm drain system and discharged to a waterbody. In addition, stormwater runoff rates and quantity are significantly increased as a result of impervious surfaces caused by new development.

Impacts to water quality and the physical and biological characteristics of an aquatic habitat caused by new development can be minimized through implementing permanent stormwater quality control measures. The control measures and tasks outlined in this section require new development and major redevelopment projects to incorporate post-construction stormwater BMPs and to ensure that the measures are operated and maintained once construction is complete.

### 2.5.1 Permit Requirements for New Development and Redevelopment

The Small MS4 General Permit requires the City to develop, implement, and enforce a program to minimize the long-term impacts of stormwater from new development and redevelopment projects. The program must ensure that post-construction stormwater BMPs that prevent or minimize water quality impacts are incorporated into the design of these projects. At a minimum, the program must:

1. Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for the community, and
2. Adopt and enforce an ordinance, policy, or other regulatory mechanism that requires projects include the incorporation, and long-term operation and maintenance of appropriate long-term BMPs.

The long-term BMPs should reduce impacts to water quality and beneficial uses of receiving waters. The strategies employed by the City must reflect the conditions of the City, including size, receiving waters, and amount of anticipated construction. Attachment 4 to the Small MS4 General Permit outlines design standards that are required for the City because of its high growth rate. The draft Small MS4 General Permit indicates that these requirements pertain only to sites greater than one acre, although the referenced design standards pertain to smaller sites as well.

### 2.5.2 Control Measures for the New Development and Redevelopment Program

The control measures presented in this section address stormwater from public and private newly developed and redeveloped sites.

NDR1 establishes adequate legal authorities through an ordinance to require post-construction stormwater BMPs. General Plan policies (to be revised in 2004) will be reviewed (and modified, if necessary) for consistency with this SWMP.

NDR2 implements land development plan and BMP review procedures that incorporate consideration of potential water quality impacts from land development. The City will develop standards that incorporate measures to minimize pollutant discharges to the storm drain system. Review staff will be trained to recognize proper post-construction stormwater BMPs appropriate for land development in the City.

### *2.5.3 Supporting Control Measures*

The Construction Activities Program works in parallel with this program element. The staff responsible for the inspection activities of the Construction Activities Program will also be responsible for inspection of post-construction BMPs.

---

<b>Control Measure Title:</b>	Stormwater Quality Control Ordinance for Post-construction Stormwater BMPs
<b>Control Measure Objective:</b>	Develop an ordinance, if necessary, to require post-construction stormwater BMPs for new development or re-development projects.

---

## DESCRIPTION

Ordinances are the most effective means for municipalities to ensure post-construction stormwater management is provided for new development and major redevelopment. The City will develop an ordinance with language supporting incorporation of post-construction BMPs.

## EXISTING BMPs AND RELATED ACTIVITIES

- The City's General Plan was initially adopted in 1990. The latest revisions were completed on June 14, 2000. General Plan policies and action items are legally binding statements, although the document does not contain implementation schedules.
- City ordinance 15.08.280 (runoff control) allows the City manager or his/her designee the option to require a surface water runoff control plan that calculates runoff from a construction site under natural conditions and estimates runoff after development using City drainage design standards.
- The Planning Division establishes land use conditions and controls through City Code and other legally binding development plans and documents to ensure orderly and consistent land development and protection of the environment and natural resources.

## MEASURABLE GOALS

1. Review existing City ordinances and policy statements for consistency with future revisions of this SWMP:
  - General Plan policy statements and action items
  - Runoff control ordinance.
2. Evaluate available model ordinances for applicability in the City.
  - Model Urban Runoff Program example stormwater management ordinance
  - City of Sacramento stormwater ordinances.
3. If necessary, adopt a Stormwater Quality Control Ordinance that incorporates the inclusion of post-construction stormwater BMPs.
  - a. Draft Ordinance in Year 2.
  - b. Finalize Ordinance in Year 3.

**ASSESSMENT TASKS**

1. List model ordinances reviewed in context of post-construction stormwater BMPs.
2. Record adoption of a Stormwater Quality Control Ordinance with post-construction stormwater BMP provisions.

**RESPONSIBILITY**

The SWMP Coordinator will review available model ordinances and existing City ordinances and draft and finalize a stormwater quality control ordinance. The City Attorney will assist with review and promulgation of City code. The Community Development Department enforcing code compliance will review the draft ordinance.

---

<b>Control Measure Title:</b>	Land Development Plan Review
<b>Control Measure Objective:</b>	Develop standard conditions of approval for land development projects. Develop a document review process for staff to ensure post-construction stormwater BMPs are included in the design prior to plan approval.

---

## DESCRIPTION

If water quality impacts are considered from the beginning stages of a project, new development and potentially redevelopment provide more opportunities for water quality protection. Controls chosen will need to consider the local environment and seek a combination of source and treatment controls to reduce pollutants. The City will adopt a planning process that identifies implementation strategies (e.g., adopt a combination of source and/or treatment stormwater BMPs), and operation and maintenance policies and procedures.

## EXISTING BMPs AND RELATED ACTIVITIES

- The City has incorporated standard designs for curb, gutter, sewer, manholes, and other capital improvements for land development into the City's Standard Specifications, which are supplemented by the State of California, Caltrans Specifications, and Caltrans Standard Plans. All development projects are required to comply with these standards. The Standard Specifications are available on the City of West Sacramento's website or can be purchased at the City's main office.
- The Planning Division researched stormwater management methods used by the City and County of Sacramento. Based on the original methods used by these agencies, the City currently requires stormwater quality controls for larger new developments in order to ensure that drainage from large projects receive pretreatment before entering waterways.
- The City takes responsibility for the maintenance of public resources, such as landscaping, waterways, the sanitary sewer system, the storm drain system, and structural BMPs.
- All land development applications are reviewed by the Planning Division for compliance with City standards. Measures determined to be necessary are written into the conditions of approval for the project.
- To comply with CEQA requirements for subdivision development applications, the Planning Division establishes necessary mitigation measures to ensure significant environmental impacts will not occur as a result of land development.
- After acceptance and approval of final maps by the City, maintenance of permanent stormwater BMPs (which are public infrastructure) then generally becomes the responsibility of the Public Works department.

## MEASURABLE GOALS

1. Develop land development standards and specifications for post-construction stormwater BMPs that comply with the criteria and guidance specified or referenced in:

- Municipal code
  - General Plan
  - Small MS4 General Permit's Attachment 4.
2. Enhance the standard conditions of approval for post-construction stormwater BMPs based on the type of land development project.
    - Enhance the “standard plans” to reflect additional land development requirements for minimizing impacts of land development on stormwater
    - Continue to coordinate plan review activities for post-construction stormwater BMPs between Divisions for the submittal, review, comment and approval of land development plans.
    - Emulate regional and localized control measures, including dry or wet detention basins that capture and treat runoff generated by large developments, on-site source control methods to prevent pollutants from contaminating stormwater runoff, and on-site water quality facilities designed to capture and treat runoff prior to discharge to the storm drain system.
  3. Develop checklists or similar method to be used by staff reviewing development plans for compliance with City standards and policies.
  4. Conduct a workshop regarding stormwater pollution control site planning and post-construction stormwater BMPs for City staff responsible for reviewing plans:
    - Established standard conditions
    - Mitigation measures
    - City requirements
    - Engineering standards.
  5. Advise local developers of area workshops regarding stormwater pollution control site planning and post-construction stormwater BMPs for local developers. Possible topics include:
    - Established standard conditions
    - Mitigation measures
    - City requirements
    - Engineering standards.

## ASSESSMENT TASKS

1. Adopt land development standards and specifications for post-construction stormwater BMPs.
2. Record the number of plans reviewed that incorporated stormwater quality controls to the development project.

3. Establish a process to track and record that post-construction stormwater BMPs are constructed, operated and maintained as planned.
4. Record City conducted training events, including number of training sessions and participants in attendance.

**RESPONSIBILITY**

The Community Development Department will improve land development plan review by enhancing current methods and distributing standards and specifications to local contractors and developers. The SWMP Coordinator will conduct stormwater pollution control workshops and maintain lists of attendees in addition to assisting with enhancement of the current plan review methods and distributing standards and specifications to local contractors and developer.

**Table 2-F. New Development and Redevelopment Program – Implementation schedule and responsibility**

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Coordinator	Engineering	Planning	Comm. Devel.	City Attorney	Other
<b>NDR1 Stormwater Quality Control Ordinance for Post-construction Stormwater BMPs</b>											
1. Review existing City ordinances and policy statements for consistency with future revisions of this SWMP.						●		○		●	
2. Evaluate available model ordinances for applicability in the City.						●		○		●	
3. If necessary, adopt a Stormwater Quality Control Ordinance that incorporates the inclusion of permanent water quality control measures.											
a. Draft the ordinance.						●		○		●	
b. Finalize the ordinance.						●		○		●	
<b>NDR2 Land Development Plan Review</b>											
1. Develop land development standards and specifications for post-construction stormwater BMPs.						○			●		
2. Enhance the standard conditions of approval for post-construction stormwater BMPs based on the type of land development project.						○			●		
3. Develop checklists or similar method to be used by staff reviewing development plans.						○			●		
4. Conduct a workshop regarding stormwater pollution control site planning and post-construction stormwater BMPs for City staff.						○			●		
5. Advise local developers of area workshops regarding stormwater pollution control site planning and post-construction stormwater BMPs for local developers.						●			○		



Continuing activity, reviewed or revised as needed throughout implementation  
 One-time activity to develop or implement a measurable goal

- Individual or department to take lead in the development or implementation of an activity.
- Individual or department to provide strong support in the development or implementation of an activity.
- Individual or department to review and provide comments and guidance during the development or implementation of an activity.

## 2.6 Municipal Operations Program

The Municipal Operations Program focuses on municipal operations conducted by public agencies. By implementing stormwater quality controls at municipal operations, the City provides leadership in complying with federal and State requirements, thereby demonstrating to businesses and residents the fairness of the requirements.

### 2.6.1 *Permit Requirements for Pollution Prevention / Good Housekeeping for Municipal Operations*

The City must develop and implement an operations and maintenance program that will prevent or reduce pollutants in runoff from municipal operations. At a minimum, the City must:

1. Consider all municipal activities and identify those that may contribute pollutants to stormwater, such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, stormwater system maintenance, flood management, and pesticide and herbicide use;
2. Select and implement BMPs which will reduce or eliminate the pollutant contributions from these activities to the MEP; and
3. Train new and existing employees about the impacts of stormwater pollution from municipal activities and how to implement the BMPs selected to prevent and reduce these impacts.

Major facilities such as the corporation yard are already required to develop Storm Water Pollution Prevention Plans (SWPPPs) that overlap significantly with the requirements in this permit. Activities related to land disturbance and pesticide use are addressed elsewhere in this document.

### 2.6.2 *Control Measures for the Municipal Operations Program*

Control measures for this program element focus on the Public Works Department's activities. The control measures assess and improve upon employee training, roadwork, storm drain system maintenance, open space maintenance, and SWPPP development and implementation.

MO1 develops an employee-training program to address pollutants resulting from municipal operations.

MO2 continues and improves roadwork and street sweeping activities.

MO3 continues and improves inspections and maintenance of the storm drain systems.

MO4 improves upon existing maintenance practices for municipal open space.

MO5 continues to implement SWPPPs for designated City facilities.

### 2.6.3 *Supporting Control Measures*

Additional control measures that partially address this program element include detecting and eliminating illicit discharges to the storm drain systems (ID2).

---

<b>Control Measure Title:</b>	Employee Education and Training
<b>Control Measure Objective:</b>	Increase City employee awareness of stormwater pollutants and BMPs for reducing pollutants from municipal operations.

---

**DESCRIPTION**

In-house employee training programs are useful to teach employees about stormwater management, potential sources of contaminants, and best management practices (BMPs). Employee training programs instill personnel with a thorough understanding of their responsibilities to minimize stormwater pollutants. In doing so, personnel will learn about the processes and materials they are working with, safety hazards, practices for preventing discharges, and procedures for responding quickly and properly to toxic and hazardous material incidents.

**EXISTING BMPs AND RELATED ACTIVITIES**

- Employee handbooks contain current City policies and procedures that employees need to know while employed with the department.
- The Public Works Department conducts tailgate safety meetings once a month. Attendance is mandatory. The meetings last for about 20 to 30 minutes.
- Hazmat response (see control measure ID2) is reviewed with all staff approximately quarterly. Field crews are trained in pollution prevention as well as methods to prevent liquid spills from entering the storm drain system.
- Attendance at safety meetings and special training is filed in a binder and recorded in a training database.

**MEASURABLE GOALS**

1. Review and update employee handbooks.
  - Identify where it may be revised to include reference to the City's responsibility to implement the SWMP.
  - Indicate positions responsible for implementing control measures in the SWMP.
2. Include discussions of pollution prevention and BMP implementation quarterly at safety meetings for all municipal employees responsible for activities that could impact stormwater quality.
  - signage, roadwork and street sweeping BMPs
  - operation, upkeep, inspection, maintenance, and repair activities of City-managed storm drain systems
  - landscape maintenance standards and practices
  - good housekeeping and pollution prevention at municipal facilities.

3. Provide training videos related to stormwater management in the employee library.
4. Regularly circulate educational materials on stormwater management issues to employees, e.g., the journal *Stormwater*.

**ASSESSMENT TASKS**

1. Record updates to employee handbooks as related to stormwater management.
2. Record monthly safety meetings that include discussion related to stormwater quality. Record the date, location and employees in attendance.
3. Review employees' knowledge and awareness of the information presented regarding good housekeeping and pollution prevention. Conduct additional training and/or revise training materials as needed based on the results of the review.

**RESPONSIBILITY**

The SWMP Coordinator will review and update employee handbooks, circulate education material to City staff, and assist with employee education through safety meetings and training videos. The department directors will be responsible for educating employees through safety meetings and training videos and assist with reviewing and updating employee handbooks and circulating education material to City staff.

---

<b>Control Measure Title:</b>	Signage, Roadwork and Street Sweeping Activities
<b>Control Measure Objective:</b>	Implement procedures, practices and schedules to ensure municipal roadwork activities minimize stormwater pollutants.

---

## DESCRIPTION

Substantial amounts of sediment and pollutants may be generated during daily roadway and bridge use and scheduled repair operations, and these pollutants can threaten local water quality. Routine performance of general maintenance activities such as sweeping, vegetation maintenance, and cleaning of the storm drain system can help alleviate the impacts of these pollutants. Modifications in roadway resurfacing practices can also help reduce pollutant loads to stormwater and protect the quality of receiving waters.

## EXISTING BMPs AND RELATED ACTIVITIES

Signs, Striping and Painting Activities:

- City workers use water-based paint products that do not contain heavy metals.
- Paint is applied in a manner to minimize over spray and spillage and is scheduled only during the dry periods.
- Disposable paint brushes are used in corporation yards to prevent wastewater from washing paint brushes from being discharged to the storm drain system.
- Graffiti is covered with water-based paint on painted surface, sand blasted on streets, and removed from signs with spray-on solvents and towels.

Road, Street, Curb, Gutter and Sidewalk Repair and Maintenance:

- Asphalt work is typically scheduled during the dry season only.
- Road maintenance and repair work are typically scheduled during the dry season.
- Spills like fuel or oil are contained using kitty litter if it is relatively small; large spills trigger notification to the EHD Hazmat Team.

Street Sweeping Activities:

- Street sweeping frequency in residential areas has increased as of August 2002 from once every other month to once per month.
- Commercial areas are swept weekly.
- Industrial areas are swept once per month.

## MEASURABLE GOALS

1. Maintain signs and painted indicators throughout the City following current practices.

2. Develop and implement a BMP Activity Sheet related to asphalt and concrete work.
3. Maintain or improve street sweeping frequency throughout the City.
  - a. Sweep residential areas once per month.
  - b. Sweep commercial areas once per week.
  - c. Increase sweeping frequency in residential areas to twice per month by Year 5.

**ASSESSMENT TASKS**

1. Document development of a concrete and asphalt work BMP Activity Sheet.
2. Implement a supervisory oversight program in which supervisors verify and document that employees are correctly implementing BMPs.

**RESPONSIBILITY**

The Utilities and Street Maintenance department is responsible for implementing signage, roadwork, and street sweeping activities. The SWMP Coordinator will assist in these efforts.

---

<b>Control Measure Title:</b>	Storm Drain System Maintenance
<b>Control Measure Objective:</b>	Implement maintenance procedures, practices and schedules to minimize pollutants from entering the storm drain system.

---

## DESCRIPTION

Routine cleaning and maintenance of the storm drain system reduces the amount of pollutants, trash, and debris both in the storm drain system and in receiving waters. Clogged drains and storm drain inlets can cause the drains to overflow, leading to increased erosion. Benefits of cleaning include increased dissolved oxygen, reduced levels of bacteria, and support of aquatic habitat.

## EXISTING BMPs AND RELATED ACTIVITIES

- Reclamation District 900 maintains the majority (80%) of surface water drainage features (primarily open ditches) within the City. City field crews maintain all other aspects of the storm drain systems, including all drop inlets, pipes, and pump stations. Maintenance activities for the storm drain system's open ditches include:
  - Using a backhoe and dragline to clear vegetation in primary canals once every 5 to 7 years.
  - Mainly mowing in urbanized areas with careful, occasional use of pesticides used under Yolo County's permit number 57-03-570409A.
- The City cleans out all drop inlets to the storm drain system annually. Cleaning begins near the end of fall season when leaf litter accumulates and ends during the rainy season. Pipes are also sucked dry if hydraulic capacity is reduced notably.
- Areas with poor drainage are noted in work orders and by review of the Public Works infrastructure database.
- City ordinance 12.38.010 (Southport Drainage Impact Fees – purpose and authority) is designed to further the goals and objectives of the City General Plan's Public Facilities and Services Element and the Southport Framework Plan, and to provide a source of funding for the storm drainage improvements identified in the city's Southport Drainage Master Plan.

## MEASURABLE GOALS

1. Maintain the City's major drainage channels by inspecting and, if necessary, cleaning catch basin inlets and drainage channels annually.

## ASSESSMENT TASKS

1. Maintain records for routine inspections and maintenance of the storm drain inlets and conveyance system indicating date, location, and observations/activities.
2. Maintain a record of employee training provided.

**RESPONSIBILITY**

Reclamation District 900 maintains most of the open ditches in the City. The Engineering Division is responsible for maintenance of the remainder of storm drain system. The SWMP Coordinator will assist in these efforts.

---

<b>Control Measure Title:</b>	Municipal Open Space Management
<b>Control Measure Objective:</b>	Implement procedures, practices and schedules to minimize pollutants from parks and other open spaces.

---

## DESCRIPTION

Pollutant loads including nutrients and pesticides from municipal open spaces can be significant. The City will identify and supplement BMPs to minimize these loads.

## EXISTING BMPs AND RELATED ACTIVITIES

The City's "Landscape Maintenance Standards" provide guidance for City field crews:

- Irrigation of landscaped areas is synchronized with fertilizer placement in order to minimize discharge of fertilizer residue into the storm drain system.
- Permanent sprinkler systems are permitted only on the landside slope of levees, minimizing discharge of fertilizer residue.
- Irrigation of street medians is done to prevent overflow from going into the storm drain system.
- Mulching and green-waste reduction measures are implemented into the lawn mowing operations to minimize the use of fertilizers.
- A City-hired contractor checks both the drip and sprinkler irrigation systems weekly for proper operation. Sprinkler heads are adjusted as needed for unimpeded coverage and to minimize overspray and water waste. The drip irrigation system is changed as needed to assure proper operation.
- Lawns, trees, and shrubs are watered as weather conditions require for replenishing soil moisture below the root zone, avoiding discharge to the storm drain system.
- Any pesticides used must be on the Department of Agriculture's approved list and contractors must provide appropriate permits and licenses before pesticides are used. The City is notified one week prior to the expected date of application. All spraying
- All spraying of pesticides is done to avoid any hazard to adjacent areas.
- Vegetation retained or planted on levees is subject to permit and is outlined in the "Interim Guide for Vegetation on Flood Control Levees", adopted September 16, 1988 by the Reclamation Board. Planting is carefully considered for functional requirements of protection against wave wash and enhancement of overall environmental quality.
- City ordinance 8.24.010 (Tree preservation) enacts regulations governing the removal and preservation of street trees, heritage trees, significant trees and landmark trees on private and public property within the city, and the planting and maintenance of street trees within new and already established developments. Among other benefits, trees maintain the environment, including minimizing discharge to the storm drain system through stormwater interception and increasing the oxygen output of the area which is needed to combat air pollution.

- City ordinance 13.04.830 (Irrigation and sprinkling) establishes limits on water usage for conservation purposes.
- Signs with the following message are posted in several (commonly five) different languages in every park in West Sacramento:
  - “Prohibited:
    - Alcoholic beverages
    - Vehicles off pavement
    - Golf or dangerous projectiles
    - Pets without physical restraints
    - Littering or defacement
    - Depositing off-site trash
    - Amplified sound
    - Commercial activity
    - Loitering 10PM to 6AM(Permits Excepted).”

**MEASURABLE GOALS**

1. Investigate potential benefits of developing and implementing an Integrated Pest Management program for City open space maintenance.

**ASSESSMENT TASKS**

Conduct field spot inspections by the SWMP Coordinator to verify that landscape maintenance standards are being adequately conducted.

**RESPONSIBILITY**

The Parks and Community Services department is responsible for implementing this control measure.

---

**Control Measure Title:** Stormwater Management Practices at Municipal Facilities

**Control Measure Objective:** Implement Storm Water Pollution Prevention Plans (SWPPPs) for City facilities.

---

## **DESCRIPTION**

The City can set a positive example for stormwater management at its corporation yard and wastewater treatment plant. These two facilities are required to develop and implement Storm Water Pollution Prevention Plans (SWPPPs). The major objectives of a SWPPP are to help identify the sources of pollutants that affect the quality of stormwater discharges, and to describe and ensure the implementation of practices to reduce pollutants in stormwater discharges. A SWPPP includes a site description and identifies BMPs that address potential sources of pollutants to the storm drain system.

## **EXISTING BMPs AND RELATED ACTIVITIES**

- The City's fleet is maintained at the corporation yard. An oil and grease separator is installed in the vehicle and equipment washing area.
- The City has developed and is currently implementing Storm Water Pollution Prevention Plans (SWPPPs) for the corporation yard and the wastewater treatment plant. The SWPPPs describe the property, identifies potential pollutant sources, characterizes site conditions that could lead to pollutants entering the storm drain system, lists implementation team members, includes log sheets for training, inspections, and maintenance, and identifies BMPs implemented to control pollutant discharges.
- Material storage at the corporation yard is discouraged and generally consists of minor volumes. Concrete bins contain asphalt materials.
- Spill control materials at the corporation yard consist of absorbent socks, kitty litter, and towels.

## **MEASURABLE GOALS**

1. Continue to implement the SWPPPs for the corporation yard and the wastewater treatment plant.
2. Continue to maintain the City's fleet at the corporation yard. Automotive maintenance should stress techniques that allow the facility to run a dry shop.

## **ASSESSMENT TASKS**

Record changes to SWPPPs for any City facilities.

## **RESPONSIBILITY**

The Planning and Public Works Department is responsible for maintaining the City's fleet and for implementing appropriate stormwater management practices at the corporation yard. The

---

Wastewater Treatment Division is responsible for activities at its plant site. The SWMP Coordinator will review facilities' status for SWPPPs.

**Table 2-G. Municipal Operations Program – Implementation schedule and responsibility**

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Coordinator	Pub. Works	Utility & Streets	Parks Maint.	WWTP	Other
<b>MO1 Employee Education and Training</b>											
1. Review and update employee handbooks.						●	◐	◐	◐		
2. Include discussions of pollution prevention and BMP implementation quarterly at safety meetings.						◐	●	●	●		
3. Provide training videos related to stormwater management in the employee library.						◐	●	●	●		●
4 Regularly circulate educational materials on stormwater management issues to employees.						●	◐	◐	◐		
<b>MO2 Signage, Roadwork and Street Sweeping Activities</b>											
1. Maintain signs and painted indicators throughout the City following current practices.						◐		●			
2. Develop and implement a BMP Activity Sheet in City activities related to asphalt and concrete work.						◐		●			
3. Maintain or improve street sweeping frequency throughout the City.						◐		●			
<b>MO3 Storm Drain System Maintenance</b>											
1. Maintain the City's major drainage channels by inspecting and clean catch basin inlets and drainage channels annually.						◐	●				
<b>MO4 Municipal Open Space Management</b>											
1. Investigate potential benefits of developing and implementing an Integrated Pest Management program for City open space maintenance.						◐			●		
<b>MO5 Stormwater Management Practices at Municipal Facilities</b>											
1. Continue to implement SWPPPs.						◐				●	●
2. Continue to maintain the City's fleet at the corporation yard.						◐				●	●



Continuing activity, reviewed or revised as needed throughout implementation  
 One-time activity to develop or implement a measurable goal

- Individual or department to take lead in the development or implementation of an activity.
- ◐ Individual or department to provide strong support in the development or implementation of an activity.
- ◑ Individual or department to review and provide comments and guidance during the development or implementation of an activity.

## **2.7 Industrial Facilities Program (Optional)**

The Industrial Facilities Program focuses on addressing industrial-related discharges of pollutants to the storm drain system. The program also concentrates on eliminating illegal discharges from industrial sources that are not stormwater related.

There are no permit requirements for this program element.

### *2.7.1 Control Measures for the Industrial Facilities Program*

Control measures in this section focus on controlling stormwater pollutants at industrial facilities.

IF1 provides a means of assessing stormwater management efforts of industrial facilities in order to improve operations. The City will compile a contact list of all industrial users and determine the water quality impact of each user.

### *2.7.2 Supporting Control Measures*

Outreach material reaching a citywide audience will also reach many industry employees. In addition, the City, by implementing a stormwater pollution prevention plan at its corporation yard, will provide an example of good environmental stewardship for industries.

---

<b>Control Measure Title:</b>	Stormwater Management Practices at Industrial Facilities
<b>Control Measure Objective:</b>	Gather information on industrial facilities' efforts in stormwater management as a basis for improving operations.

---

## DESCRIPTION

Industrial operations are only one contributor to stormwater pollution, but they are known to be a source of heavy metals, oily wastes, and other substances. Manufacturing, shipping, and storage operations that are exposed to stormwater can be sources of pollutants in stormwater. Identifying types of industrial facility operations and coordinating directly with facilities to establish a relationship is a constructive way of dealing with potential stormwater pollution issues.

## EXISTING BMPs AND RELATED ACTIVITIES

- Registered industrial facilities with certain Standard Industrial Codes (see <http://www.swrcb.ca.gov/stormwtr/sicnum.html>) require compliance with the Industrial Activities Storm Water General Permit. The primary component for compliance is the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).
- The City of West Sacramento's Industrial Pretreatment Program (IPP) has been under implementation for a number of years. Inspectors unofficially survey for illicit discharges to the storm drain system and report any illicit discharges to Yolo County. The IPP is currently responsible for monitoring approximately 60 industrial users within the City on a regular basis. Industrial Pretreatment inspectors usually identify storm drain locations and assess the potential for discharges of pollutants to the storm drain system. Industrial Pretreatment personnel also assist other Public Works crews in data collection and sampling of water flowing into storm drains when needed.
- Facilities are inspected at least twice annually if the facility is a significant user and at least once annually if a minor user, and then on an as-needed basis. Industrial facilities are inspected randomly. They are inspected again if illicit discharges are suspected. Self-monitoring reports of wastewater discharge are submitted to the City during the second and fourth quarter of each year, and quarterly if the facility has an interceptor.
- Applications for business licenses require that information on handling, storage, use and disposal of hazardous chemicals be sent to the Yolo County Environmental Health Division (EHD). Businesses handling hazardous materials/wastes are required to develop an Emergency Response Plan that includes a spill prevention and clean-up plan. These Plans are on file at EHD and local fire departments.
- The Yolo County EHD also inspects industries that pose potential threats to the environment, such as hazardous waste handlers. They also inspect restaurants for sanitation requirements. Personnel may enter facilities identified to have potential health and safety issues related to wastewater discharges or other illicit discharges.

**MEASURABLE GOALS**

1. Identify and compile a list of industrial facilities and contacts in West Sacramento that require compliance with the Industrial Activities Storm Water General Permit.
2. Advise identified industries of their requirement to comply with the Industrial Activities Storm Water General Permit by mailing a notification letter. Provide information about responsibility and liability under EPA 40 CFR Parts 9, 122, 123, and 124.
3. Prepare and make available appropriate stormwater pollution prevention information for industrial facilities.

**ASSESSMENT TASKS**

Document contacts with industrial facilities.

**RESPONSIBILITY**

The SWMP Coordinator is primarily responsible for implementing this control measure. The County Environmental Health Department will assist with compiling a contact list with classification information and reviewing SWPPPs.

**Table 2-H. Industrial Facilities Program – Implementation schedule and responsibility**

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Coordinator	Engineering	Planning	Building	Envir. Health	Other
<b>IF1 Stormwater Management Practices at Industrial Facilities</b>											
1. Identify and compile a list of designated industrial facilities.						●				●	
2. Advise identified industries of their permit requirement.						●				●	
3. Prepare and make available appropriate stormwater pollution prevention information for industrial facilities.						●				●	



Continuing activity, reviewed or revised as needed throughout implementation  
 One-time activity to develop or implement a measurable goal

- Individual or department to take lead in the development or implementation of an activity.
- ⦿ Individual or department to provide strong support in the development or implementation of an activity.
- Individual or department to review and provide comments and guidance during the development or implementation of an activity.

## 3 PROGRAM IMPLEMENTATION

---

### 3.1 Program Management and Roles

Management and oversight of the Stormwater Management Program (SWMP) development and implementation is essential to the success of the program and for meeting the intent of the Small MS4 General Permit. The development and implementation of the SWMP requires the participation and coordination of many of the departments, divisions and employees in the City. Careful oversight and management of the SWMP will ensure that:

- The roles and responsibilities for the development and implementation of the SWMP are assigned to the appropriate City departments, divisions or employees.
- Proper coordination and cooperation exists between departments, divisions or employees responsible for program development and implementation.
- Control measures are developed and implemented as scheduled.
- Measurable goals are monitored and the effectiveness of the program is assessed and reported.

Descriptions of the roles and responsibilities for each department directly or indirectly involved in the SWMP are provided below. Items and activities to be conducted by the SWMP Coordinator and other positions are identified in the control measure fact sheets. The City's departments and key activities related to the SWMP are illustrated in Figure 3-1. The departments involved by program element are shown in Figure 3-2.

#### 3.1.1 Stormwater Management Program (SWMP) Coordinator

The SWMP Coordinator operates out of the Public Works Department and will provide general oversight for this program. The Coordinator will assume no direct supervision over a department, division or employee. The Coordinator will serve as the coordinator between the various responsible parties for day-to-day business relating to the SWMP, such as setting meetings, conducting program evaluations and preparing reports and submittals for the City Council and the RWQCB. The SWMP Coordinator is responsible for collecting comments and updating the SWMP as appropriate.

The SWMP Coordinator or other City representative participates in the Yolo County Stormwater Coordination Committee, comprised of the Small MS4 General Permit holders in the County, namely the University of California at Davis, the County of Yolo, and the Cities of Davis and Woodland (in addition to the City of West Sacramento). The group met on two occasions prior to submittal of their first SWMP. The group will continue to meet approximately twice annually to discuss common issues and seek opportunities for collaboration.

#### 3.1.2 Public Works Department

The Public Works Department is responsible for the operation, maintenance, and management of the City's infrastructure. The department is made up of five divisions: Administration, Water Treatment, Wastewater Treatment, Utilities & Street Maintenance, and Facilities & Equipment

Maintenance. The following divisions are responsible for developing and implementing various measurable goals of the program elements:

- **Wastewater Treatment** – Implements SWPPP for the municipal wastewater treatment plant; periodic inspection and maintenance of the sanitary sewer system.
- **Utilities & Street Maintenance** – Inspections and maintains streets and the storm drain system.
- **Facilities & Equipment Maintenance** – Inspects and maintains Public Works’ facilities and major equipment (such as pumps).

### *3.1.3 Community Development Department*

The Community Development Department consists of the Planning, Building and Engineering Divisions of the City.

- **Planning Division** – regulates the location and quality of new development in the City.
- **Building Division** – provides building inspection and plan checking services for all construction in the City for compliance with Uniform Construction Codes
- **Engineering Division** – performs all professional and sub-professional engineering functions for the City.

### *3.1.4 Other Departments and Divisions*

- **Fire Department** – protects life, environment and property within the City; divided into three major units: Emergency Services, Fire Prevention/Hazardous Materials and Administration.
- **Parks and Community Services Department** – creates and maintains City-owned park lands and provides various community outreach programs; made of two division: Community Services and Parks Maintenance.
- **Finance Department** – implements all trash collection and recycling program activities via the Refuse and Recycling Coordinator.
- **Information Technology Division** – provides computer and networking services for City staff.
- **City Attorney** – reviews and develops City ordinances.
- **City Clerk** – assists with City Council activities, in particular prepares presentations and Commission meetings.
- **Community Relations Division** – within the City Manager’s office, organizes community events and coordinates public outreach activities.

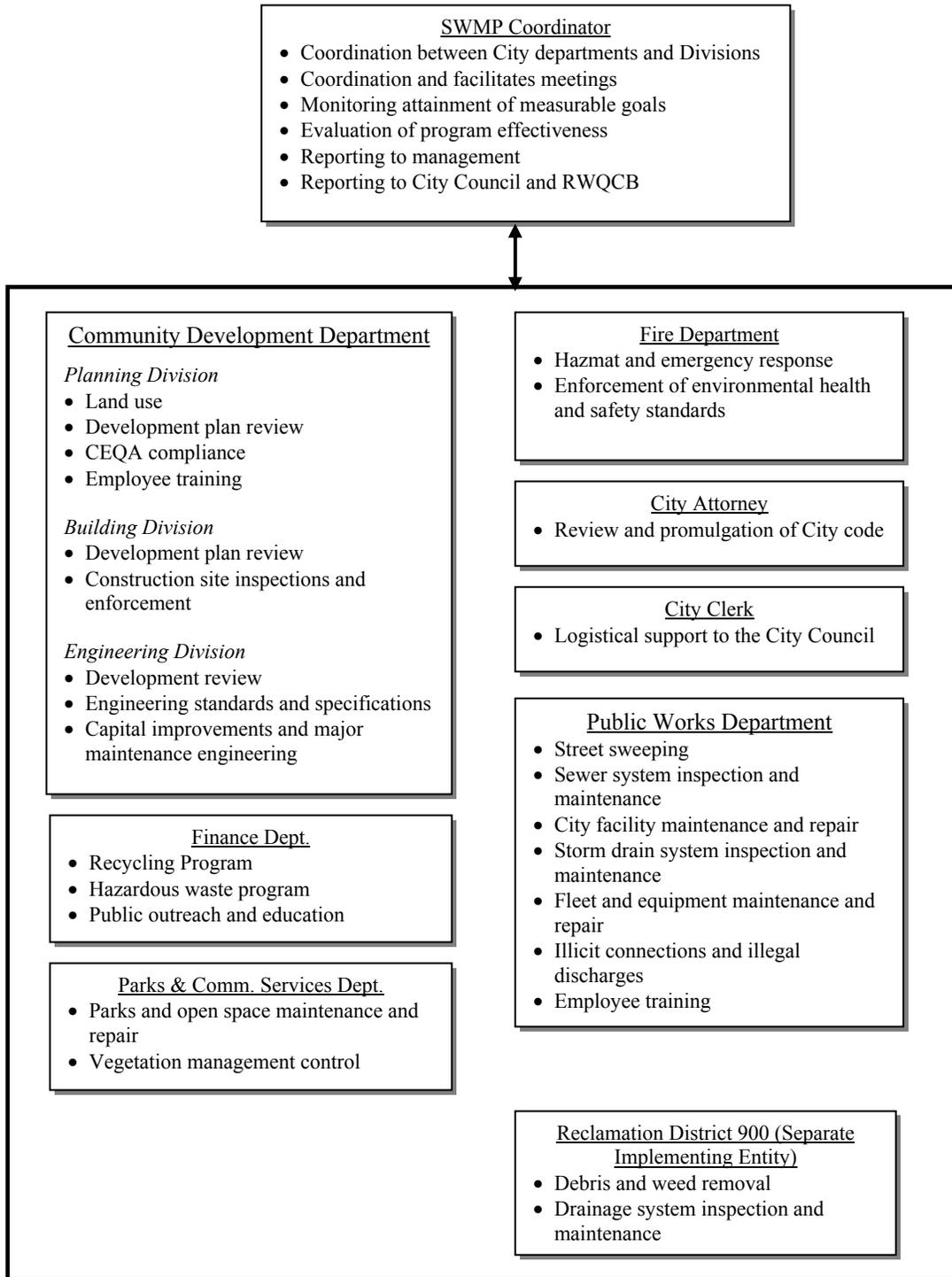
### *3.1.5 Separate Implementing Agency*

Reclamation District 900 was created under State laws, which provided for the reclamation of swamp and overflow lands. The District bonded itself to pay for the construction of levees, provision of rights-of-way, and the construction of a system of canals and pumping plants that drain approximately 10,811 acres and cover about 80% of the City of West Sacramento. The District’s service area stretches south of the Union Pacific Railroad tracks to the City limits, from

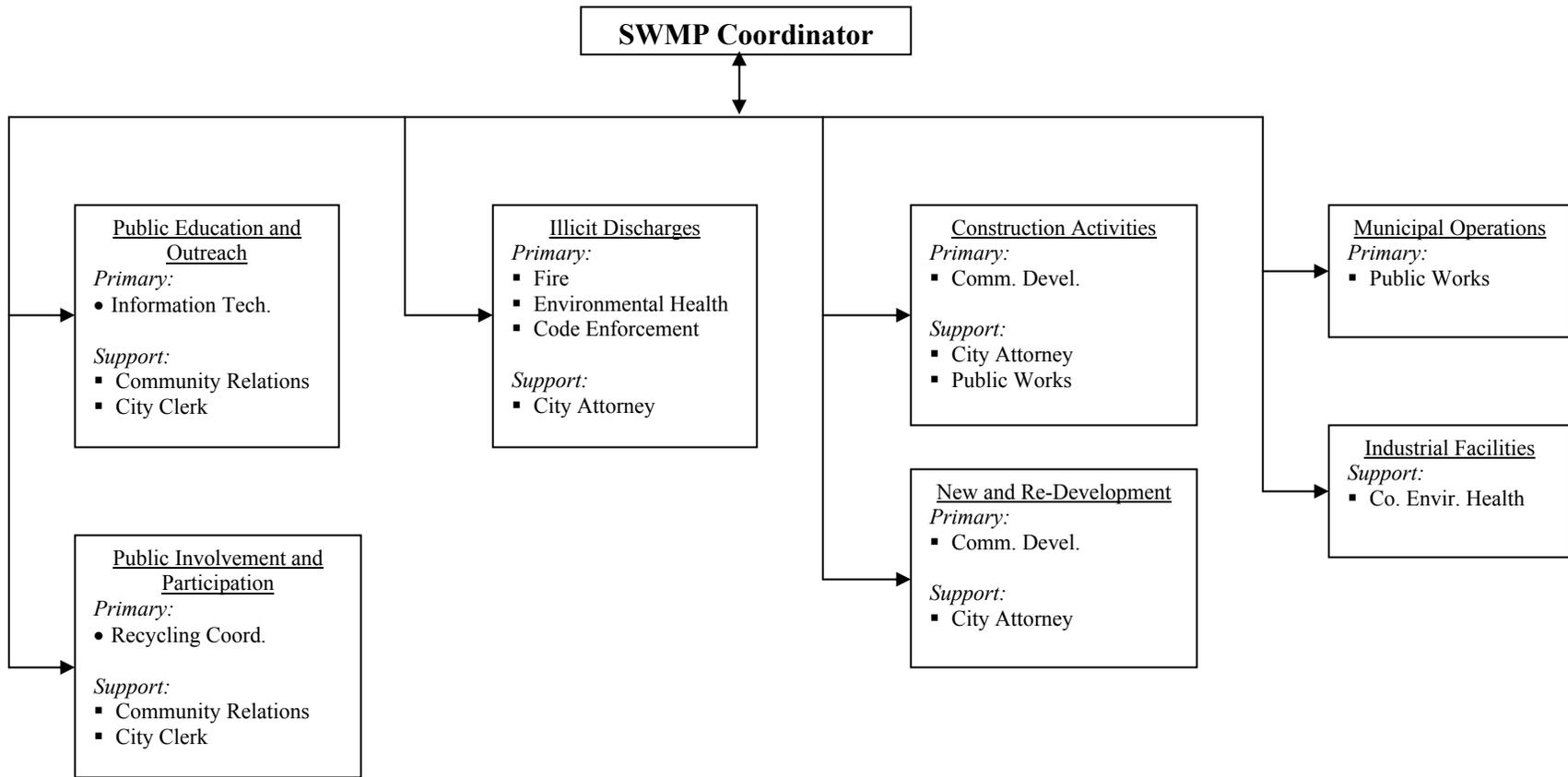
the Sacramento River to the Yolo Bypass. The District is responsible for inspecting and maintaining the surface drainage system (not buried pipes) within its service area. The cost of maintaining the levee and drainage system is paid for by collecting assessments from the landowners, based on a benefit-valuation roll prepared by independent commissioners and approved by the Yolo County Board of Supervisors.

West Sacramento's canal drainage system was split into two sections when the Port of Sacramento was construction in the late 1950s. A new drainage facility was then constructed to drain the 4,000 acres north of the Port. It was located at the west end of Lake Washington, which serves as a detention basin for the new facility. It now consists of six 200-horsepower pumps. Another facility with two 125-horsepower pumps was built on the north side of I-80 to provide back-up capability. Residential and industrial development in the 7,000 acres south of the Port has required the addition of three stormwater detention ponds and pumping facilities to lower runoff rates and protect water quality in the main drainage system.

**Figure 3-1. SWMP Activities by Responsible Department**



**Figure 3-2. Management of SWMP Program Elements by department**



### **3.2 Program Staffing Resources**

The only staff position to be added initially for this program will be the SWMP Coordinator. Additional staff would be required to inspect the entire storm drain system (see control measure ID2) and inspect industrial facilities. Control measures under the seven program elements have been incorporated into existing work activities or built from existing resources as much as reasonably possible. Incorporating control measures into existing resources and activities is the most cost-effective approach the City could pursue. Incorporating the SWMP into daily activities will improve with City management involvement and adequate coordination and cooperation among departments and divisions.

### **3.3 Statement of Funding Adequacy**

Initially, the City will utilize existing funding sources to implement the SWMP. Additional funds may come from a storm drainage fee. Depending on citizen interest and other funding constraints, the amount of the fee could range anywhere from \$9 per household per year (USEPA's estimate) to \$150 per household per year (the current charge to residents of neighboring Sacramento County). Additional funding specifically for review and inspection of construction sites and land development projects may come from building and development permit fees.

The need for additional funds for program elements will be evaluated as part of the annual review process. The SWMP Coordinator will investigate, in collaboration with the Grant and Community Investment Department, opportunities for grant funding of stormwater quality monitoring and other stormwater-related activities.

### **3.4 Recordkeeping**

The City will keep records required by the Small MS4 General Permit for at least five years, or the duration of the permit, if continued. The records used to document compliance with the SWMP will be available to the public during regular business hours from the various implementing departments. The SWMP and related documents may be viewed at Turner Library (1212 Merkley Avenue), Public Works Department (1151 South River Road), and at the Civic Center (1110 West Capitol Avenue).

### **3.5 Assessment Activities**

The City will monitor the implementation of this SWMP, evaluate and report on its effectiveness, and strive for continuous improvement. Staff positions responsible for monitoring and assessing the control measures are noted in the control measure Fact Sheets. The SWMP Coordinator will be responsible for overseeing the entire program's implementation and evaluating its effectiveness. City Council will be informed through annual reporting and presentations.

### 3.5.1 *Monitoring*

The SWMP Coordinator will monitor implementation of the SWMP's measurable goals. This oversight will assess compliance with the Small MS4 General Permit, along with measuring and improving the effectiveness of the SWMP in its current and planned form.

The SWMP Coordinator will update the Pollutants of Concern section based on any available monitoring results.

### 3.5.2 *Program Evaluation*

Each control measure has assessment tasks to assist the City in determining the effectiveness of this SWMP. The effectiveness of the SWMP will be determined by evaluating:

- Compliance with the SWMP schedule,
- Appropriateness of the control measures in the SWMP to reduce the discharge of pollutants to the MEP,
- Program costs compared to budgeted costs, and
- Progress towards meeting its measurable goals.

### 3.5.3 *External Reporting*

This section discusses external reporting requirements in the permit.

#### 3.5.3.1 *Permit Compliance Reports*

The City will submit a report by August 15 each year of the first five-year permit term. The first report is due in 2004. Subsequent permits reports are to be submitted in year two and four of the five-year term. The Regional Board may require additional reporting. Reports are to include:

- Status of compliance with permit conditions (as described in this planning document),
- Assessment of the SWMP's overall effectiveness and appropriateness of control measures and BMPs;
- Results of information collected and analyzed, including results of monitoring, special studies, or research projects;
- Work plan summary for the subsequent reporting cycle;
- Proposed changes to program elements, with justification; and
- Change in the person(s) or position(s) responsible for implementing and coordinating the SWMP.

#### 3.5.3.2 *Noncompliance Reporting*

The City will report any noncompliance with the permit within 30 days. For emergency situations (endangering human health or the environment), available information will be reported orally to the RWQCB within **24 hours** from the time that City personnel become aware of the circumstances. A written description of the circumstances will be submitted to the RWQCB within **5 days** of becoming aware, providing a description of the noncompliance and its cause, the period of noncompliance (including dates and times, and anticipated time to continue if not

yet corrected), and the steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance.

#### 3.5.3.3 New Outfall Report

Newly constructed major outfalls not identified in the SWMP will be reported to the RWQCB at least 90 days prior to construction of the outfall. The report will include the following information:

1. Receiving water name;
2. Stormwater drainage system map of added area; and
3. Certification that the SWMP will be amended to include the drainage area.

#### 3.5.4 *Continuous Improvement*

This SWMP is a “living document” that may be updated annually in response to program assessments. In addition to SWMP oversight provided by the SWMP Coordinator, and implementing the assessment tasks provided at the end of each control measure, the City will:

1. If available, review monitoring results collected by staff and collaborators. Evaluate results and revise SWMP, if necessary.
2. Identify and conduct special studies, as needed, to assist in program effectiveness evaluation activities.
3. Investigate participating in other municipal, state or federal BMP studies if determined beneficial to the City’s program.